

78h

A
P R A C T I C A L
T R E A T I S E
O F
Painful Distempers,
W I T H
Some effectual M E T H O D S of *curing*
them, *exemplified* in a great Variety of suitable
HISTORIES.

By THEOPHILUS LOBB, M. D. and
Fellow of the ROYAL SOCIETY.

Fi

Καὶ ἐλάλησε κύριος πρὸς Μωυσῆν, λεγών,
- - - - - καὶ παντὶ συνετῶ καδίᾳ δέδωκα
Σύνεσιν. Exod. xxxi. 1, 6.

Ὅτι κύριος δίδωσι σοφίαν, καὶ ἀπὸ πρῶ-
σώπῃ αὐτῷ γινώσκεις, καὶ σύνεσις. Prov. ii. 6.

L O N D O N:

Printed for JAMES BUCKLAND, at the
Buck, in Pater-Noster Row.

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The RIGHT HONOURABLE

JAMES,

Earl of *ABERCORN,*

*Baron of PAISLEY, Baron of ABER-
CORN, Baron of HAMILTON, Baron
of MOUNTCASTLE, and Baron of
KILPATRICK in GREAT-BRI-
TAIN, and Viscount of STRA-
BANE, and Baron of MOUNT-
CASTLE in IRELAND; one
of the LORDS of his MAJESTY'S
most Honourable PRIVY COUNCIL
in GREAT-BRITAIN, and in
IRELAND, and FELLOW of the
ROYAL SOCIETY, &c.*

MY LORD,

4th Dec

IT certainly recommends
a Book to the Regard of
the Publick, if it has the Fa-

a 2

vour

iv DEDICATION.

vour of some Person eminent in the World for a discerning Judgment, high Rank, and great Impartiality. This Consideration made me desirous of such an Advantage, and therefore ambitious of Your LORDSHIP's Patronage.

As Your LORDSHIP's sincere Zeal for his MAJESTY's Interest, and the Establishment of the *Protestant* Succession in his Royal Family, and for the Liberty, the Properties, and common Rights of Men, must endear YOU to every good Subject; so Your Ardour to promote

DEDICATION. V

promote *natural* and *useful*
KNOWLEDGE in all its
Branches, and Your uncommon Application in valuable
Studies, engage the Esteem of
those, who are Lovers of
Learning, and have the Honour of Your Acquaintance.

These Things, MY LORD,
I can testify upon my own
Knowledge, since I have been
so happy as to be admitted to
many Conversations with YOU:
Conversations by which I always improved, and which to
me were most pleasing Instances of Your great Conde-
scension

vi DEDICATION.

ascension and Humanity; which, with Your candid Opinion of what I have before published, and the Honour YOU did me in proposing me to the ROYAL SOCIETY to be chosen a FELLOW of that Learned and Illustrious BODY, encouraged me to hope YOU would also indulge me the Honour of making this Address.

May I add, that Your LORDSHIP's Permission for so doing, gives me a peculiar Satisfaction, as it shews a noble Disposition to favour those Performances, which subserve the
Good

DEDICATION. vii

Good of Mankind, tho' done
by the Hand of an obscure
Person.

I am with very great Re-
spect,

MY LORD,

Your LORDSHIP's much obliged,

and most obedient

humble Servant,

THEOPHILUS LOBB.

PREFACE



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§. I

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of



THE
PREFACE.

§. I.



HAVE, in the ensuing Treatise, consider'd some of the most frequent, and common painful Distempers, which afflict human Bodies: They are many, and some of them very dreadful, both on the Account of the exquisite Torment they give, and the Hazard into which they put the Lives of those who fall under them.

§. 2.

§. 2. *It is an Instance of great Compassion and Goodness, that God has provided Remedies for the Relief of his Creatures from the Torture and Misery of these Diseases, (§. 1.) and that he leads Men into the Knowledge of them. This should raise in our Minds grateful Thoughts of the Kindness of God our Maker; and those Performances, which are designed for, and which, with his Blessing, may conduce to the Recovery of Persons from painful Disorders, will, I think, be acceptable to all Men.*

§. 3. *I have in these Papers labour'd to contribute somewhat to so desirable an End; and have studied as much Brevity as the Variety of the Subjects treated of would admit.*

§. 4. *I have studiously avoided taking Notice of the Opinions of learned Authors (which any may read in their Works) concerning the Distempers treated of, because I would not swell this Book to a great Price; my Intention being only to communicate my own Sentiments, and the Principles on which my Methods of Practice are grounded: Methods in which, thro' the divine Blessing, I have had a most happy Series of Successes.*

§. 5.

§. 5. *That the Book might be of a moderate Price, and on that Account get into more Hands, and thereby become more extensively useful, I have likewise laid aside many Histories transcribed for the Press, tho' I think the printing of medical Cases one of the most effectual Methods of improving the Practice of Physick: I determin'd also to have the Prescriptions printed with small Italick Types; because if they had been printed with Letters of the same Size with the other Part of the Book, it would, I apprehend, have increased the Price one fourth Part more than it is.*

§. 6. *I have endeavour'd to inculcate clear and just Notions of the real State of Things in human Bodies under several painful Distempers; and likewise of those Particulars, which are to be intended and pursued, in order to remove them; and have shew'd by what Ways, and Sorts of Medicines the Cure of them may be accomplish'd.*

§. 7. *It may be observed, that there is a Difference in the Medicines prescribed by me in painful Distempers of the same Denomination; the Reason of which was some Difference*

ference in the Constitution or Symptoms of the different Patients : I have likewise often found Occasion to vary my Prescriptions for the same Patient, (a) when a second or a third Time afflicted with the same Disease, on the Account of some Difference in the State of his Case under the Return of his Pains. There is a great Nicety and Exactness necessary to suit the Remedy to the Disease, not only in different Bodies, but in the same in different Times, on the Account of the Changes or Alterations, which are perpetually happening in almost every Body.

§. 8. *In describing the Distempers of the Persons, whose Cases I have related, and the Variation of their Symptoms, I have endeavour'd to do it, as much as I could, in their Words and Phrases, that my Reader may form his Notion of each Disease, and of the Alterations in it, not from a Narrative of what I thought to be the Case, but from the Accounts which were given to me; and are the Foundation of my Sentiments of each Person's*

(a) Vid. an Instance of this in Hist. XLIX, L.

Distemper; and therefore I hope those Expressions in the Histories, which seem odd, and improper, will be excused.

§. 9. *There may be some mistaken Ideas or Notions of Things, in the Performance, tho' I do not know of any, and hope there are none of any great Consequence; none prejudicial to Persons afflicted with Pain: But I am sure there are many Things in it subservient to their Ease.*

§. 10. *It is impossible for a Man, who only can get one, or two, or three Hours, now and then, and at distant Times for his Studies, and meets with frequent Interruptions in them, (which has been my Case) to write with that Exactness, which may be wished: Only Persons in a College, or other like retired Life, have the Opportunities needful for it. It is therefore reasonable to expect Allowances will be made to one, who has no Time at command, but ventures to incur the Censure of being an incorrect Writer, rather than loose, or delay the Opportunity of publishing Things he knows will be useful to Mankind.*

§. 11.

§. 11. *As there are many PHYSICIANS in this City, deservedly eminent for their Learning and medical Skill, and who have had the Advantage of a large Practice thro' the Course of many Years; so it would be a great Improvement of the PRACTICE of Physick, and redound to the Good of Men thro' succeeding Ages, if they had Leisure and Inclination to communicate to the PUBLICK their Notions of Diseases, the Observations they have made on the Cases, which have occur'd to them; and the Methods and Medicines they have found most successful for the Recovery of their Patients.*

§. 12. *The Consideration of these Things may well excite a Man to undertake the Labour of such Performances; since by them he may be an happy Instrument of much Good not only to his own Country, but to many others, and likewise to many Generations. Such were the Motives, which prevailed with me to employ my Time as I have done, and I hope will be allowed as a sufficient Apology for publishing this Treatise.*

§. 13.

§. 13. *It cannot be amiss to observe, that altho' the Medicines related in the Histories were so effectual to the Purposes for which they were given, yet Persons should be careful they do not venture too far in ordering the Use of them for themselves or their Friends; because the JUDGMENT of some one thoroughly acquainted with the medical Art, is requisite to direct the Composition and Application of Remedies in every Distemper attended with Danger.*

§. 14. *An ALTERATION in the component Parts of a Medicine, or in the Proportions of them, or in the Quantity of it for a Dose, or in the Time of taking the Doses, is often necessary for the same Person, and under the same Distemper at different Times, (vid. §. 7. foregoing) and much more so for Persons of different Sexes, Ages, Constitutions, and under different Complications of SYMPTOMS.*

§. 15. *It is therefore best, in Case of any Sickness, which needs ADVICE, for People not to depend on their own Judgment, but to apply to their PHYSICIAN, who by his medical Studies and Experience, is surely most capable of directing the proper Remedies. This*
is

is a Point, which needs to be inculcated; for as a Painter that chooses wrong Colours, or that mixes them in mistaken Proportions, will not be able to make the beautiful Image of the Object intended; and as the Workman that mistakes his Tools, or that uses them in an improper Order or Manner, will not be able rightly to perform the Work he undertook; so a mistaken Adviser of Remedies, who orders a wrong Medicine, or directs a right one in a Manner, or in Doses that are improper, may render the Disease worse, but will not cure it. I have said thus much, because it is the Way of many, when they hear such a Medicine has relieved another under this, or that Distemper, to send for it for themselves, if they imagine they have the same; or to recommend it to their Friend, if they think him afflicted with it, tho' they are ignorant both of the Nature of the Medicine, and of the Disease; and likewise of the Constitution, and of the State of the Fluids and Solids of the Person for whom they advise. This PRACTICE has often been attended with sad Consequences to the Patient, and has brought many good Medicines into Disgrace; and therefore should be avoided.

The P R E F A C E. xvii

§. 16. *I will only add, that altho' I have published the Medicines in the Language wherein they were prescribed; yet I have been very careful in my Treatise of the Small-Pox, my two Books on Fevers, and in this Treatise, to discourse of the Subjects of them in such a Manner, as to render them easy to be understood, and of important Use to every Family, that may happen to have them; by acquainting them with the Things, which must be avoided, as prejudicial to Persons under the Distempers treated of; and by giving such plain Directions relating to the several Diseases, and the Management of the Sick, as may not only prevent the Use of wrong Methods, but contribute much to their Recovery.*

Bagnio Court in New-
gate-street, London.





The CLASSES of PAINFUL
DISTEMPERS *consider'd*
in this TREATISE.

PAINFUL DISTEMPERS may
be divided into *four Classes*, viz.

- I. Painful Distempers of the HEAD.
- II. Painful Distempers of the THORAX,
or *Breast*, &c.
- III. Painful Distempers of the ABDO-
MEN, or *Belly*, from the *Diaphragm* down-
wards.
- IV. Painful Distempers of the LIMBS.

I. CLASS.

Of the painful Distempers of the HEAD, the most frequent of which are the following, *viz.*

1. The HEAD-ACH exemplified in Hist. I, II, III, IV, V, XVII.

2. The TOOTH-ACH Hist. VI.

3. The Pains of the GUMS, JAWS, and FACE, } Hist. VII, VIII, IX.

4. The Pain of the THROAT, or *Quinsey*, Hist. X, XI, XII.

5. The Pain of the EYES, or *Ophthalmy*, Hist. XIII, XIV, XV.

6. The Pain of the EARS.

II. CLASS.

Of the painful Distempers of the THORAX; the most common of which are the following, *viz.*

1. The PALPITATION of the HEART, Hist. XVI, XVII,

2. The

2. The Pain of the BREAST, or anterior Part of the *Thorax*, HIST. XIX.

3. The Pain of the SIDES above the Diaphragm, HIST. XVIII.

4. The Pain of the BACK above the Diaphragm, HIST. XIX.

5. The Pain of the SHOULDERS, HIST. XIX.

III. CLASS.

Of the painful Distempers of the ABDOMEN, or *Belly*: These affect either,

I. The Parts *contained*, or,

II. The Parts *containing*.

I. Of the painful Distempers of the Parts *contained*: The most common of these are the following, *viz.*

1. The HEART-BURN, or Pain in the Mouth of the Stomach.

2. The Pains of the STOMACH, of various Kinds; par-

3. The Pains of the BOWELS, particularly,

1.] Of Pains produced by *too great Pressures* against the Extremities of the Nerves affected, occasion'd, 1. By *viscid Humours* in the Blood. Pains in the BOWELS from this Cause, *vid.* HIST. XX, XXI.

2. Of Pains produced by *too great Pressures* against the Extremities of the Nerves, occasion'd by *elastick Air*. An Example of these in the Stomach, *vid.* HIST. XXII.

2.] Of Pains produced by *acrid Particles*; more particularly,

1. Of Pains from acrid Particles excreted from the Blood, *under* the common covering Membrane, and there brought to *immediate Contact* with the Extremities of the Nerves affected. Instances of this Sort of Pains in the STOMACH, *vid.* HIST. XXIII, XXIV, XXV. An Instance of them in the BOWELS, *vid.* HIST. XXVI. Belonging to this Class, *vid.* an Example of the GOUT in the STOMACH and BOWELS, HIST. XXVII. Another of the Gout in the Stomach, HIST. XXVIII.

2. Of Pains from acrid Particles excreted from the Blood into the *Cavity* of the STOMACH, or BOWELS, HIST. XXIX, XXX.

3.] Of Pains in the STOMACH and BOWELS from *complex* Causes, *vid.* HIST. XXXI.

4. Of

4. Of the STONE, or Pains in the KID-
NEYS and URETERS, Hist. XXXII.

SUPPRESSION of URINE without Pain
in the *Kidneys*, an Instance of it,
§. 330.

5. The Pain of the Neck of the BLAD-
DER in making Water, or of the STRAN-
GURY and DYSURY. The *Strangury* ex-
emplified Hist. XXXIII, XXXIV, XXXV,
XXXVI.

6. AFTER-PAINS, Hist. XXXVII,
XXXVIII.

7. The Pains in going to STOOL, or *Ten-
nasmus*.

8. The PILES, Hist. XXXIX.

II. The painful Distempers of the Parts of
the ABDOMEN *containing*: The most
common of them are,

1. The Pains of the BACK below the
Diaphragm, Hist. XL, XLI.

2. The Pains of the SIDE below the
Diaphragm.

b 4 IV. CLASS.

IV. CLASS.

Of the painful Distempers of the LIMBS;
the most frequent of which are the following, *viz.*

1. The CRAMP, Hist. XLII.
2. The RHÉUMATISM, Hist. XLIII, XLIV, XLV.
3. The GOUT, or Pains in the *Joints*:
Pains in the HIPS exemplify'd in Hist. XLVI,
XLVII, XLVIII. Pains in the KNEES, Hist.
XLIX, L. Pains in the FEET, Hist. LI.



THE



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ADVER-

ADVERTISEMENT.

The following BOOKS have been lately published by Dr. LOBB.

A Treatise on the SMALL-POX. In two Parts. Part I. containing an Account both of the *distinct* and *confluent* Kind, their various *Symptoms*, the *curative Indications*; and of the METHODS of managing the Sick, as to *Diet*, *Medicines*, &c. To which are added, Answers to the Arguments for Bleeding in this Disease; and *Proofs* of the *Probability* of curing it in the *febrile* State, so as to prevent the Eruption, &c.

Part II. Exhibiting *fifty* HISTORIES, in which this *Disease*, and its various Symptoms, are exemplified; and a DISSERTATION on the Management of *young Children* under it; with a METHOD of *external* Remedies for those, who would not take *internal* Medicines. London, printed 1731.

The learned Dr. BOERHAAVE gave his Opinion of this *Book* in the following Words; which with his Consent has been printed, and prefixed to the printed Copies of it.

Librum de Variolis, Anglicè, conscriptum à Domino Theophilo Lobb, M. D. & R. S. S. perlegi, probaviq; nam plenum vidi veræ Scientiæ medicæ, promittentemque Gentī humanæ Bona plurima.

Leydæ, 17¹²33.

Hermannus Boerhaave.

2. RATIONAL METHODS of curing
FEVERS, &c. Together with a particular
Account of the EFFECTS of artificial EVA-
CUATIONS by *Bleeding, Vomiting, Purging,*
Sweating, Blistering, &c. With practical
RULES deduced from them; shewing in
what CASES they are *proper*, and in what
they are *improper*, London, printed 1734.

3. MEDICAL PRACTICE in curing FE-
VERS correspondent to *Rational Methods,*
&c. exemplified in many CASES of the
most usual FEVERS, with the Medicines
by which they were cured, London, printed
1735.

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Page 46. Line 11. for §. 54. read §. 53. P. *ibid.* l. 12.
for §. 52. r. 51. p. *ibid.* l. 16. for §. 52. r. 51. p. *ibid.*
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è Mechâ. p. 127. l. 17. for 214. r. 213. for 213. r. 212.
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r. *Gonorrhæa.* p. 222. l. 2. after *3vi.* add *vel.* p. 305.
l. 15. after *gut.* 24. add *Extract. Gentian. q. s.*



A
P R A C T I C A L
T R E A T I S E
O F
Painful Distempers,
Illustrated with proper
HISTORIES.

C H A P T E R I.

*Containing a Description of the
Painful Distempers proposed to
be the Subject of this Treatise;
and an Enquiry into the Struc-
ture and Oeconomy of the Nerves.*

§. 1.  H E Subject of these Pa-
pers has not, that I know
of, been very distinctly con-
sidered by any Author, tho'
it is a Point of great Moment, as painful
Diseases do afflict Multitudes of People,
B and

and as Ease is a most desirable Blessing.

§. 2. Every Distemper may be called *Painful*, that has Pain for one of its Symptoms; but I do not propose to take Notice of those Diseases in which the Pains are purely *symptomatical*; and therefore would here observe two Things, which should be remember'd, *viz.*

§. 3. 1. That when a Fever is the first Distemper, and the Pains complained of are the Effects, and Consequences of it, those *Pains* are *symptomatical*. These I have already treated of in my second Book on Fevers, entituled, *Medical Practice*, &c. in which I have shewn how those Fevers, on which such Pains depend, are to be managed, and may with the divine Blessing be cured.

2. That when the Pain is the first Disease, and the Fever is produced by it, the Fever then is *symptomatical*, and the Pain is the essential, or primary Distemper.

§. 4. It is this Species of Distempers, §. 3. N^o 2. I shall endeavour to explain, as to their Causes, Nature, curative Indications, and Method of Cure: Pains which
are

are the *primary*, if not the only sensible Disorders of the Body ; or, the chief, if not the only Things, which the Patients complain of, are the Subject of my Consideration, tho' from these, if they are violent, *symptomack* Fevers do frequently arise.

§. 5. Distempers of this Sort (§. 4.) very often occur to me in the Course of my Practice ; and I question not that the same happens to other Physicians, whose Endeavours for the Relief of their Patients may succeed to their Wishes, tho' either they have not Time, or have no Inclination to publish to the World their Notions, and Ways of managing Persons in such Cases ; and therefore, for the Service of those who are studying Physick, and for the Good of Mankind, I have taken the Trouble of publishing some of my Sentiments about them, and some of those Methods of Cure, which in my Experience have proved successful. And as every rational and effectual Method of removing Pains, (which are always tormenting, tho' they do not always put the Life into Danger) will prove beneficial to Mankind ; so I hope my Endeavours to

promote the Ease of my Fellow-Creatures, will be acceptable to many; and it will give me a great Satisfaction, if others, who have more Leisure, and greater Abilities, shall pursue and improve the Subject of this small Treatise, which, in Reality, is rather an Essay on a great Variety of Maladies, very grievous and afflicting.

§. 6. These Distempers (§. 4.) are, many of them, denominated from the Part, which is the Seat of the Pain. Thus the Head-Ach is called *Cephalalgia*, when the Pain is recent; and *Cephalæa*, when it has been of long Continuance; Words derived from κεφαλή, which signifies the Head; and thus Pain is called *Odontalgia*, when it is, as we say, in the Teeth; and *Cardialgia*, when in the Heart, or in the Mouth of the Stomach, which is near it; and *Colica*, when in the Gut *Colon*, &c. But in order to the taking right Methods, and prescribing proper Remedies, it is requisite that we know the particular and more immediate Causes of the Pain, which the Patient complains of; and to this Purpose we should consider some Things relating to the Structure, and Oeconomy of the Nerves, and the different

ent general Causes by which Pains may be produced.

§. 7. I. It will be needful to enquire a little into the Structure of the Nerves. A single Nerve is a very small, round, white, long, and cylindrical Part of the Body, going either from the *Medulla oblongata*, or *Medulla spinalis*, and when cut transversely, appears porous like an *Indian Cane*.

§. 8. There are reckoned ten Pair of Nerves to proceed from the *Medulla oblongata* within the Skull, and thirty Pair without the Skull from the *Medulla spinalis*, which descend down the Perforation of the Vertebres of the Neck, and Spine; and are divided into two Parcels, each inclosed with distinct Membranes; one Parcel descending on the right, and the other on the left Side of the Spine, or Spinal Cavity.

§. 9. Each visible Nerve is in Reality a Bundle of Nerves contain'd in a membranous Covering, derived from the *dura* and *pia Mater*. Dr. Baynes in his *Essay on the Nerves* (p. 23.) relates, That in a Piece of the Trunk of the crural Nerve, when the Membrane that inclosed it as a

6 *Of the Structure of the Nerves.*

Theca, or Sheath, was stripped off, the Nerve appeared as a Bundle of Threads composed of many different Bundles, each inclosed within its own *Theca*, all lying parallel to one another like so many small Cylinders sticking together by transverse Fibres running in an oblique Direction up and down: Each Thread, by the *Microscope*, appear'd to have an external Covering, or *Theca*, and appear'd transparent. " For (adds the Doctor, *p.* 24.) " one no bigger " than an Horse-hair, (which with a fine " Needle I divided into twelve distinct " Threads from the Middle without break- " ing one to the End, holding by the other " End of the Section) resembled a Tessel " of fine Flax, at the divided End; and " applying them to a Microscope, each of " these divided Fibres appear'd as if solid, " and very transparent, with many small " Fibres sticking out of their Sides, which " were those that connect the nervous fila- " mentary Tubes together, and were torn " from their Sides in the Separation.

§. 10. We are to consider in a NERVE the Parts *containing*, and the Parts *contained*.

1. The

Of the Structure of the Nerves. 7

1. The PARTS *containing*. These are tubulous Productions of the *dura* and *pia Mater*, and are (as to their Form) exceedingly minute and concave Cylinders, which I shall call nervous *Tubuli*, when I have Occasion to speak of them ; because they are really Tubes, and appertain to the Nerves ; and those who will not allow them to be any Part of the Nerves, will acknowledge that the Nerves are contain'd in them.

2. The PARTS *contained*. These are *Medulla* like, white, long, round, smooth, and, to our Feeling, soft Substances, (extending the whole Length of their containing membranous *Tubuli*) and a peculiar Fluid ; a Fluid *sui generis*, continually secreted by the *Cerebrum* and *Cerebellum*, and propel'd into the nervous *Tubuli*.

§. II. Whether the white Substances contain'd in the nervous *Tubuli* be Collections of smooth, white, solid, spherical Bodies of the utmost Minuteness, or a Substance continually secreted and propelled into their proper *Tubuli* from the Brain and *Cerebellum*, I shall not enquire ; but only here observe what is certain, *viz.* That altho' the white Substances contain'd in the

3 *Of the Structure of the Nerves.*

nervous *Tubuli* should be Collections of solid spherical Bodies, yet a Fluid is continually secreted and propelled into the nervous *Tubuli*, and pervades the *Interstitia* of those Spheres. This will be evident, if we consider the Structure of the Brain and *Cerebellum*, (which are fitted for the Office of Secretion) the Largeness of these Glands, the great Quantities of Blood continually brought to them by the Carotid Arteries: Which Particulars lead us not only to think that a Fluid is secreted by the Brain, but that this Secretion is much the largest of any in the animal Oeconomy: I may add, that the Ouzing of a Fluid from any Nerve, when it is cut or wounded, proves, that the nervous *Tubuli* contain a Fluid, which Fluid must have been secreted from the Blood by the Brain, or *Cerebellum*, and thence derived. This Liquid may therefore very properly be called *Succus nervosus*, or the nervous Fluid. I shall not here enquire into all its Uses, or whether it is by this that all the Parts of the Body are nourished, and their Wastes repaired; such Enquiries being foreign to my Subject: But I may fitly mention some Propositions, the
Remembrance

Of the Structure of the Nerves. 9

Remembrance of which may help Persons in framing right Ideas of the painful Diseases, which so frequently happen in human Bodies; particularly the following.

§. 12. Prop. 1. *All Nerves terminate in the Superficies of some or other Part of the Body.*

Prop. 2. *All the Nerves ending in the external Superficies of the Body, are covered with a thin Membrane called Epidermis or Cuticula: Which serves to defend them from external Injuries, to be a Medium between them and the Objects felt; and to prevent that Efflux and Waste of the nervous, as well as of other, Fluids, which might happen, if there was no such Covering.*

Prop. 3. *All the Nerves terminating in the internal Superficies of the Mouth, Oesophagus, Stomach, Intestines, and indeed of every other Part of the Body have likewise their Extremities cover'd with a thin Membrane; which serves the like Purposes as the Epidermis.* Prop. 2.

Prop. 4. *That either there is a wonderful and mysterious dividing, and subdividing, and branching out of the Nerves towards their Endings; or the Nerves at their Endings*

10 *Of the Structure of the Nerves.*

ings are wonderfully expanded. One of these must be true, since no Puncture can be made with the finest Needle, in the Superficies of any Part of the Body without wounding a Nerve, and exciting Pain; and since only forty small Pair of Bundles of Nerves render every Part of the Body capable of Feeling, and of suffering Pain.

Prop. 5. *That with the Nerves in every Part under both the outward and inward Superficies of the Body, there is a Contexture of sanguine, and lymphatick Arteries, and Veins.*

Prop. 6. *That in every Part of the Superficies of the Body, under the Epidermis and under the internal covering Membrane are VASA INHALANTIA with open Orifices to receive and convey ab extra whatever is minute enough to enter and pass thro' them inwards.* By Means of which various Humours may be repelled from both Superficies into the Blood.

Prop. 7. *That all the Sensations of Seeing, Hearing, Smelling, Tasting, and Feeling, Pleasing or Painful, are perform'd by Means of the Nerves.* Or thus; The Nerves are the Instruments or Organs of
every

every Sensation : But how Sensation is perform'd, whether by Impression from the Object perceived, on the *Medulla*-like Substances contain'd in the nervous *Tubuli*, or on the nervous Fluid, which pervades the *Interstitia* of those Substances, or on the Extremities of those *Tubuli*, or by Impression on them joyntly, is of no great Moment for us to know, and therefore what I shall not employ my Thoughts about ; but it must be by one, or other, or by all these Ways jointly.

Prop. 8. *That every Sensation seems to be perform'd by the sensible Object somehow, or other acting on the Extremities of the Nerves ; not commonly on the Sides of the nervous Tubuli.* Thus it seems to be as to the Perceptions we have by *seeing, hearing, smelling, and tasting* : The Objects seen act on the Extremities or Endings of the *optick* Nerves ; the Sounds heard, impress the Extremities of the *auditory* Nerves ; the *Effluvia* of the Objects smelled, strike against the Extremities of the *olfactory* Nerves ; the Things tasted, impress the Endings of the *gustatory* Nerves : And thus Objects felt make their Impressions on
the

12 *Of the Structure of the Nerves.*

the Extremities of those Nerves by which we feel.

Prop. 9. *There is something similar in all the Nerves ; and we have Reason to think there is something different in Nerves, which serve different Sensations.* How else comes it to pass, that we do not taste by the same Nerves by which we feel ?

Prop. 10. *The nervous TUBULI may be either too humid and lax, or too dry and rigid, as well as other Vessels and Membranes of the Body.* The Reasons of this Proposition are obvious to those, who understand the Animal Oeconomy.

Prop. 11. *The SUCCUS NERVOSUS, or nervous Fluid is capable of manifold Variations.* It may be varied in its *Quantity*, and become too much or too little : It may likewise admit of many Alterations in its *Quality* ; it may become thicker or thinner in its Consistence, than it ought to be ; and it may, from divers Causes to us unknown, derive very different other Qualities, as well as the other secreted Fluids. Here let me observe, that the Basis of all the animal Secretions is pure Water ; and the Difference, that is in the different Fluids secreted,

creted, arises from the different Modifications, Sizes, and Combinations of the Particles mixed with the Water of the different Secretions; and we may easily apprehend, that Changes may happen not only in the Combinations of those Particles, but in the Particles themselves: Their Figure and Size may be altered; a Sphere may be divided into two Semispheres, or into more Parts; nay, it may be so much broken into Parts, that some of them shall become acrid, or sharp pointed; in a Manner similar to what often happens on breaking a smooth, round Flint into many Pieces; and if the nervous *Tubuli* were a thousand Times smaller than they are, we may as easily conceive or apprehend saline, and other acrid Particles minute enough to enter, and pass thro' them.

Prop. 12. *That in the Coats of the sanguine Arteries, with the other Vessels, which compose them, there is a Contexture of Nerves, whose Extremities expand, and spread over the Superficies of those Arteries.*

Prop. 13.

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Prop. 13. *That the sanguine Arteries are capable of being made the Seat of Pain.* For where-ever there are Extremities of Nerves, there Pain may be produced.



CHAP. II.

C H A P. II.

Containing an Account of the Causes of Pain, or of the different Ways by which it may be produced; and of the diagnostick Signs of the general Causes of Painful Distempers; and likewise of the general curative Indications; and then a Distribution of these Diseases into several Classes.

§. 13. II. **T**HE next Thing to be enquired into, is the different Ways in which Pain may be excited, or by what Causes Pain may be produced. Here I must observe, that the Cause commonly assigned, is the *stretching* some Nerve beyond its natural easy Tension (*a*); and this was

(*a*) *It is the only Cause of Pain assigned by Dr. Blancard, when he describes this Sensation, saying, Dolor est ingrata perceptio in mente orta, quod nervus ex cerebro originem habens, tam valde per causas distendatur, ut periculum ruptionis incurrat. Vid. Lexicon medicum renovatum, Lugd. Batav. 1717. And it is the only Cause of Pain assigned by the learned Dr. Boerhaave, in his most valuable Book of Aphorisms, §. 220. where he says, Si fibra nervosa cerebro orta, ita extenditur, ut dissolutionem minuetur, fit doloris idea.*

was my Opinion, till, in contemplating the Structure and Oeconomy of human Bodies, some Reasons occurred to my Thoughts against it. I consider'd, 1. That the Nerves (whether we mean those which are visible, which are so many Bundles of Nerves, or, those which are single; many of which are inclosed in the Covering of what we call a visible Nerve) are like so many Threads, or *Tubuli*, and have a *Terminus à quo*, and a *Terminus ad quem*; one End of them being connected with the *Medulla oblongata*, and the other terminating in one, or other Part of the Body. 2. That the nervous Threads, or *Tubuli*, are not made so tight as the Strings put to a Fiddle; none of which can be relaxed, or contracted from a certain Degree, without making that musical Instrument to be out of Tune; but that all the Nerves, as well as all other Vessels, which do not make Part of the Contexture of the Bones, or other firm Parts of the Body, have, from the alwise Creator, such Lengths between their Beginnings and Endings, that none of the Contractions or Extensions of the Limbs or Muscles, in any Kind

Kind of bodily Labour or Exercise, do produce Pain. A Man in Health may walk, run, stoop, and perform a vast Variety of Actions with his Body, with Ease: But under any of the Diseases I am considering, he suffers Pain, tho' all his Limbs and Muscles are in a Posture of Rest: Which inclined me to question, whether it was reasonable to think that Pain is produced by any stretching of the Nerves? and then when I consider'd, that every other Sensation is perform'd by Impression made on the Extremities of the Nerves of the other Organs of Sense, I gave up the common Opinion, and concluded, that all Pain is excited by some Action on the Extremities of the Nerves by which we feel.

§. 14. And after a close, and impartial Consideration of the Matter, it appears to me that there are two general, proximate Causes of Pain, *viz.*

1. Too great a *Pressure* against the Extremities of the Nerves affected. Or,
2. The *immediate Contact* of any *acrid* Particles with the Extremities of any of the Nerves by which we feel.

§. 15. I. As I have mentioned *too great*

a *Pressure* against the Extremities of the Nerves affected, as one Kind of general, proximate Causes of Pain, it will be proper for me, 1. To shew that *too great a Pressure* against the Extremities of the Nerves will excite Pain; and then, 2. To consider what internal Causes may produce such a Pressure.

§. 16. 1. To shew that too great a Pressure against the Extremities of the Nerves will excite Pain. This will appear evident, if we consider how certainly we can produce Pain by pinching any Part of the Body; since, in that Action, it is the pressing the Extremities of the Nerves, which is the Cause of the Pain. The Pain also, which follows upon laying too great a Weight on any particular Part of the Body; and those Pains, which are produced by striking any Part of the Body with a Rod, or Stick, are farther Proofs of this Point. The Actions of pinching and striking any Part of the Body make a violent Pressure against the Extremities of the Nerves in such a Part of the Body, but make no Elongation of the Nerves affected. Such an Action is not like pulling a String that
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is fasten'd at the other End : But if such an Action did in some Measure stretch the Nerves affected, it would not follow that the Pain was the Effect of that Stretching. It is certain that the most gentle Pressure of any acrid Matter against the Extremities of the Nerves made naked, will excite most exquisite Pains; and tho' the *Epi-dermis*, and the other covering Membrane, *viz.* that of the inner *Superficies*, secure the Nerves from suffering Pain by any gentle Pressure on the Outside of such Membrane; yet, in my Apprehension, it is easy to conceive how any violent Pressure against the Extremities of the Nerves, may excite Pain notwithstanding their natural Covering, which is very thin.

§. 17. 2. I shall now consider those *internal Causes*, which may occasion too great a Pressure against the Extremities of the Nerves; and I think the following Particulars may justly be assigned, *viz.*

1. VISCID HUMOURS in the Blood, or Particles too bulky to pass with due Facility thro' the capillary sanguine Arteries. For these Causes will obstruct them; that is, they will occasion a slower Motion of the

Blood thro' them, than ought to be. Hence it happens, that the Blood coming from the larger Arteries into the lesser, faster than it can run off into the capillary sanguine Veins, must distend those capillary Arteries, more, or less, as the Cause distending is greater or lesser; and consequently may occasion too great a Pressure against the Extremities of the Nerves terminating in the Coats of those capillary sanguine Arteries, (*vid. §. 12. Prop. 12.*) the Perception of which is Pain. In these Cases the Coats of the distended capillary Arteries is the Seat of the Malady. *Vid. §. 12. Prop. 13.* And thus Globules of Blood impelled into lymphatick Arteries will greatly distend them, and may occasion a painful Pressure against the Extremities of the adjacent Nerves: But this is the Case only when the Part affected is attended with Inflammation.

2. A CONSTRICTION of the Coats of some of the capillary sanguine Arteries may produce the like Effect by lessening the Diameter of those minute Vessels, and hindering the Blood from passing into the Veins so fast as it comes down from the larger

larger Arteries : Whence it happens that the Parts of those sanguine Arteries next above the Parts constricted ; that is, the Parts nearer to the Heart must be distended in Proportion to the Greatness of the Constriction ; and the Pressure against the Extremities of the Nerves will be in Proportion to the Quantity of the Blood obstructed, and distending those Vessels, and so will be the Pain produced by that Pressure : But this is a Cause, which does not so frequently happen.

3. THE PRESSURE of some adjacent increasing Tumour may produce the same Effect.

4. ELASTICK AIR, or *Wind*, (I use the Terms as synonymous) may be assigned as another, and indeed a very frequent Cause of a painful Pressure against the Extremities of the Nerves. By *elastick Air*, I mean Particles of Air at Liberty, or in a State capable of exerting their elastick Force, to distinguish it from Air that is not in such a State : For the Air, which constitutes the greatest Part of the human *Calculus*, and the Air in Wood, and in most other solid Bodies, (while its Particles are closely com-

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bined,

bined, and united with the other Parts of those Bodies) is not capable of exerting its Elasticity; that is, it cannot expand itself, or produce any Effects on other Bodies by that Elasticity, or elastick Quality, which is inherent in it; and therefore by Way of Distinction may be called *unelastick Air*; or, at least, it is what I mean by that Expression. Now, that elastick Air may produce painful Pressures against the Extremities of the Nerves, we may justly infer from the State of Things in *flatulent Colicks*. In those Diseases, the elastick Air, in Proportion to its Quantity, and its elastick Force, distends the affected Intestine, and presses against all the Membranes, Vessels, Nerves, and Fibres, which compose it. Elastick Air is likewise very often the Cause of Pains in the Stomach, no less than in the Bowels; and this indeed is the Cause in all Cases, where the Pain immediately ceases on the (Removal of the Pressure by the) Discharge of Wind.

§. 18. But the most frequent internal Causes of painful Pressures against the Extremities of the Nerves by which we feel, are either, 1. *Viscid Humours* in the Blood,

or

or Particles too bulky to pass with due Facility from the Endings of the capillary sanguine Arteries into the sanguine Veins, §. 17. N^o 1. Or, 2. *Elastick Air*, or *Wind*, §. 17. N^o 4.

§. 19. II. The *immediate Contact* of any *acrid*, sharp-pointed Particles with the Extremities of the Nerves, (§. 14. N^o 2.) is another Kind of the general, proximate Causes, which will produce Pain. The Truth of this Assertion will be evident, if we consider, that by passing the Point of a Needle, or Lancet, or the *Spicula* of stinging Nettles thro' the *Epidermis*, and bringing them to a Contact with the Extremities of the Nerves, we may excite exquisite Pain. The Pain which follows upon the Application of Blistering-plaisters, is a Fact, which also proves the same. For as soon as the acrid, or pungent Particles of those Plaisters pass thro' the *Epidermis*, and come to a close Contact with the Extremities of the Nerves, painful Sensations arise.

§. 20. Let us therefore enquire whether by the Force of *internal* Causes, any *acrid*, or pungent Particles may be brought to an immediate Contact with the Extremities of

the Nerves : And that they may, will appear, if we consider the Structure of the external Superficies of the Body ; and that, as under the *Epidermis* there are the Extremities of the Nerves of that *Superficies*, so there are likewise the Endings of the sudatory Vessels, and of the emissary Ducts of numberless subcutaneous Glandules ; and that by these various Sorts of Particles may, and almost constantly do, pass off from the Blood. Saline Particles certainly do sometimes pass off this Way in great Quantities ; as we may justly conclude from the manifest *Salt Taste*, which sometimes happens in the Sweat of Persons.

§. 21. This (§. 20.) likewise proves, that any other Sort of acrid Particles of the same Minuteness may pass off, or be excreted from the Blood the same Way. Now, when such excreted Particles happen to be too bulky to pass off thro' the Pores of the *Epidermis*, they must come to an immediate, and close Contact with the Extremities of the adjacent Nerves, and be the Occasion of Pain. Thus it happens in that cutaneous Distemper, we call the *Itch*, when it results from internal Causes ; then saline Particles
too

too big to pass thro' the Pores of the *Epi-dermis*, are, with some Lymph, extruded from subcutaneous excretory Ducts; and after them others, till little *Molecule* are form'd; which increasing, and extending *quâque versum*, some Particles are brought to immediate Contact with the Extremities of some Nerves, and so produce an *Itching*, (a Species of Pain, as it is an uneasy Sensation) or a *Smarting*, if the Points of the saline Particles are very accute.

§. 22. This (§. 20, 21.) may lead us easily to apprehend how *acrid* Particles may be excreted from the Blood, and brought, in like Manner, to an immediate Contact with the Extremities of the Nerves in any Part of the *internal Superficies*; and so become the Cause of Pain in the Stomach, or Bowels, or in the Superficies of any other Part of the Body, where the Structure is similar: For if such Particles are excluded from any excretory Ducts, and cannot pass thro' the Pores of their covering Membrane, they must stick a while between the Endings of such excreting *Tubuli*, and their membranous Covering; and by the Accession of other Particles (protruding them)

be

be brought to contact with the Extremities of the adjacent Nerves, and occasion uneasy Sensations, or Pains greater or lesser, in proportion to the Quantity, and Quality of such extravasated Particles.

§. 23. There is another Way in which Particles of any Kind may be brought to an immediate, and painful Contact with the Extremities of the Nerves of the internal Superficies, viz. by a *Corrosion* of their covering Membrane. Thus when any Part of the Membrane, which covers the internal *Superficies* of the Mouth, *Oesophagus*, Stomach, or Intestines, happens to be corroded, and the Endings of the subjacent Nerves are made naked, they are then exposed to immediate Contact with every Thing that passes by them. This may be the Case in some Pains of the Stomach and Intestines; and we have Reason to think it so in Infants, when they have the *Aphthæ*, especially in that Degree, which Nurses call the *Thorough Thrush*; that is, when such Excoriations are produced in the Membranes of the *Oesophagus*, Stomach, and intestinal Tube, as in the Mouth of the Infant: The like of which may happen in adult Bodies.

§. 24.

§. 24. Such *Ulcerations*, or Excoriations prove, that acrid, corrosive Particles may be, and sometimes are, excreted from the Blood, by miliary Glandules, and by both secretory, and excretory Ducts; and brought to an immediate painful Contact with the Extremities of the Nerves.

§. 25. I must also observe, that not only acrid, but many other hard or *solid* Particles immediately touching the Extremities of any Nerves, may likewise produce Pain. Thus it happens, when the *Epidermis* in any Part of the Body is rubb'd off, or by any Means so separated, that the Endings of the Nerves lie naked, then even many solid Particles, which are not sharp-pointed, by Contact with such Nerves, will excite Pain, as may be proved by touching such Nerves with the End of a Probe.

§. 26. From what has been said, (§. 17, *ad* §. 25.) I hope it appears pretty manifest, that the common Causes of Pain are very different from what has been generally assigned. Indeed, if Pain was produced only by a *too great stretching* of the Nerves, the Method of Cure would consist only in removing that which produced such a
Stretching

Stretching of them, and in contracting them to their natural Lengths. It has been shewn by Experiments, that the Nerves have no *contractile* Force, or innate Power to contract themselves, as the Arteries and Veins, and other animal Vessels have; and likewise that they cannot be extended as other animal Vessels may; that if a Nerve is pulled with great Force, it will snap and break, (like a Hair, that breaks by the pulling it) but not be increased in its Length: And I may observe, that it has not been proved to be a Fact, that any internal Causes can stretch the Nerves at all, much less occasion such frequent, and such continued Stretchings of many of them, as would be necessary to the Production of so many, so frequent, and continued Pains as afflict many human Bodies. But that *Pressure* against the Extremities of the Nerves, and that *acrid Particles*, by immediate Contact with the Extremities of them, will produce Pain, I think has been sufficiently evinced in the foregoing Sections. I may add, that pressing against the Extremities of the Nerves, will produce Effects more wonderful than that of Pain; as is evident from the Experiments

periments of that curious, and learned Gentleman, Dr. *Alexander Stuart*; For, having suspended a Frog by the Fore-legs in a Frame, leaving the inferior Parts loose, the Head being then cut off with a Pair of Sissars, he made a slight Push perpendicularly downwards on the uppermost Extremity of the *Medulla spinalis* in the upper *Vertebra*, with the Button End of a Probe, filed flat, and smooth for that purpose, and thereby all the inferior Parts were brought into the strongest Contractions: So when he slightly press'd the Probe towards the Brain, upon the End of the *Medulla oblongata* appearing in the occipital Hole of the Skull, the Eyes, and Muscles of the Mouth were convulsed. (a) These Experiments the Doctor repeated several Times on the Frog with the same Effects. I may further observe, that the known Effects of tickling the Soles of the Feet do show, that gentle Actions, or Pressures against the Extremities of the Nerves, may produce as suppreßing Contractions, and

(a) Vid. *Philosoph. Trans.* Vol. VII. p. 585. and the Doctor's *Dissertat. de structura & motu Musculari*. Page 91, 92.

and Motions of the Muscles of human Bodies, as those observed by Dr. *Stuart*.

§. 27. There is one Thing more, which, I think, may with some Probability of Truth be assigned as another Cause of Pain; and that is, *acrid Particles* secreted by the Brain with the *Succus nervosus*, and evacuated by the nervous *Tubuli*; which for a while adhering to the Extremities of the Nerves, excite painful Sensations. For altho' the secreting *Tubuli* of the Brain are extremely minute; yet we may conceive acrid Particles existing in the Blood, minute enough to be admitted into them; and, with the *Succus nervosus*, to be propell'd into the nervous *Tubuli*, and pass onwards with it; which, when they come to the Extremities of the nervous *Tubuli*, and there stick, and are accumulated, may produce Pain, till by some Means, or other, they are dislodged, and evacuated. The Probability of this Notion will be more evident, if we consider, that Part of the perspirable Matter comes, or is discharged, from the nervous *Tubuli*; and that those perspirable Particles, or excrementitious Parts of the nervous Fluid may have different Figurati-
ons,

ons, and some of them may be acrid, or sharp-pointed ; and that consequently they may be the Occasion of Pain, if by any incidental Cause they happen to be accumulated at the Extremities of any Nerves. I may add, that if the Production, Nutrition, and Growth of the Hair, are derived from the Nerves, they will prove, that various Sorts of Particles may be secreted by the Brain, propell'd into the nervous *Tubuli*, and excreted from them. It deserves Inquiry, whether some of the PAINS we call *Nervous*, are not produced in this Manner ?

§. 28. I may observe farther, that as it is certain that very acrid, and pungent Particles do exist in the Blood of some Bodies, and as there are Endings of Nerves in the Coats of the sanguine Arteries, §. 12. *Prop.* 12. so it is reasonable to think, that the sharp Points of such Particles may strike sometimes against the Sides of those Arteries, pierce thro' the covering Membrane, and prick the Extremities of some Nerves, and excite Pain, in a Manner similar to what happens on touching a Nerve with the Point of a Lancet, or Needle ; and probably some *shifting* or *moving* Pains may arise

arise from this Cause ; as such Particles, in the Course of their Circulation, may happen to strike against the Side of the Arteries, sometimes in one, sometimes in another Part of the Body.

§. 29. Whether any Object *meerly* by Contact with the Sides of a Nerve can be felt, or produce either Pleasure or Pain ; or, whether the Objects of Sense are not *only* perceived by their Impression, or Action on the Extremities, or Endings of the Nerves, are Questions I have no Occasion to debate, for shewing, that Pain does not result from a *Stretching* of the Nerves ; tho' the Negative of the former, and the Affirmative of the latter seems to be true.

§. 30. From what has been observ'd in the foregoing Sections, it appears, that the general *proximate*, or immediate Causes of Pain are, either,

1. Too great a *Pressure* against the Extremities of the Nerves affected, (*vid.* §. 15. *ad* §. 18.) or,

2. The *immediate Contact* of *acrid*, sharp-pointed, or other hard Particles with the Extremities of the Nerves, §. 19, *ad* §. 27.

§. 31.

§. 31. Since therefore the Particulars mentioned (§. 29.) are the only Causes of Pain hitherto discover'd, we have Reason to conclude, when a Person complains of a painful Distemper, that there is either, I. A too *great Pressure* against the Extremities of the Nerves affected from an Obstruction, and Distension of the sanguine Arteries in the Part, which is the Seat of the Pain; occasion'd either, 1. By *viscid Humours* in the Blood, or Particles too bulky for an easy Circulation; or, 2^{dly}, By a *Constriction* of the Ramifications of the obstructed sanguine Arteries; or, 3^{dly}, By some adjacent Tumour; or, 4^{thly}, By *Elastick Air* in too great a Quantity: Or, II. That there are some *acrid Particles* excreted from the Blood, accumulated, and adhering to the Extremities of the Nerves, under their membranous Covering, in the Part afflicted.

§. 32. We must therefore endeavour to find out in every Patient, which of the Causes mentioned, produced the Pain complain'd of; and, in most Cases, we shall be able pretty easily to distinguish or infer the true Cause, if we examine, and find out whether there be any *Inflammation* of

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the Part pained, 'or not : For if *there be none*, we may then conclude, 1. That there is no Propulsion of Blood from the sanguine into the lymphatick Arteries ; nor, 2. Any such Obstruction of the Course of the Blood thro' the capillary sanguine Arteries as is necessary to occasion painful Pressures against the Extremities of the Nerves situated in the Coats of them ; nor, 3. any Constriction of the sanguine Arteries : One or other of which constantly happens, when the Part affected is inflamed ; and, 4. That neither viscid Humours, nor Particles too bulky for an easy Circulation were the antecedent Causes of the painful Distemper.

§. 33. Therefore when there is no Inflammation of the Part affected, we must infer, that the Pain was produced either, 1. By some adjacent Tumour ; or, 2. By elastick Air ; or, 3. By saline, or other *acrid* Particles excreted from the Blood, and brought to an immediate, and close Contact with the Extremities of the Nerves affected.

§. 34. Such *acrid* Particles, so excreted, (§. 33. N^o 3.) I take to be the most frequent Causes

Causes of painful Distempers; which is a Point deserving Consideration.

§. 35. But when there is an *Inflammation* of the Part affected, and a symptomatick Fever comes on, we may then with great Probability conclude, that there are viscid Humours in the Blood, or Particles too bulky for an easy Circulation, which are the *antecedent* Causes, and that too great Pressures against the Extremities of the Nerves affected are the *proximate* Causes of the painful Distemper of our Patient.

§. 36. It is therefore a Point of Moment to know, whether the Pain complain'd of, is attended with an *Inflammation* of the Part affected, or no. For this Reason, I would observe, that if there be *no Fever* consequent to the Pain, we may hope there is little, or no Inflammation; but if the *Pain* be *intense, continued, pulsative*, and followed with an *acute Fever*, we may then conclude there is an Inflammation of the Part, where the Pain is fixed; and must direct and prescribe for the Patient accordingly.

§. 37. And as we presently know the general CONSTITUTION of every particular Pa-

36 Of the general curative Indications.

tient, whether it is *sanguine*, or *phlegmatick*, or *choleric*, or *melancholick*; and can soon inform ourselves, as to most Persons, whether the Force of the Action of the Heart, and Arteries be too great, or too little; whether there is a dry, or a moist *Intemperies* of the Solids; whether the Flesh, the Muscles, and Fibres are firm, or lax; and whether the Nerves are strong, or weak; whether there be an *Acrimony* in the animal Fluids, and whether the Blood is *viscid*, or not; so by the Help of this Knowledge, and the Consideration of the *diagnostick Symptoms* mentioned (§. 32, *ad* §. 36.) we may in most Persons find out the Origin of the painful Distemper complain'd of? and rightly infer the *curative Indications*, and the proper Methods of managing the Patient for their Recovery.

§. 38. The general *curative Indications* are easily deduced from what has been observed. *E.g.* I. If the painful Distemper be the Effect of too great a Pressure against the Extremities of the Nerves affected, the curative Indication very evidently is to *remove that Pressure*. But as painful Pressures against the Nerves may be produced
by

by very different Causes, we must enquire, which of those Causes occasion'd them: and thence deduce the *curative Indications*.

§. 39. If the painful Pressure be occasion'd by *viscid Humours* and Particles *too bulky* for an easy Circulation, (§. 17. N^o 1.) the *curative Indications* then are to attenuate the Blood, and comminute the too bulky Particles; which being obtain'd, the Blood passes as freely into the capillary sanguine Veins, as it ought; or, in other Words, it passes as fast thro' the capillary sanguine Arteries, as it comes into them from the larger. Whereupon the too great Pressure against the Extremities of the Nerves affected ceases, and the Pain vanishes.

§. 40. If *elastick Air*, (§. 17. N^o 4.) made the painful Pressure against the Extremities of the Nerves affected, as very often is the Case in painful Distempers of the *Stomach*, and *Bowels*; and as the Patient may conclude it is the Case, when he feels his Stomach, or Bowels distended, and perceives the Wind to move within him, then the *curative Indications* will be to absorb by proper Re-

38 *Of the general curative Indications.*

medies, that elastick Air, as much as possible, and to evacuate what cannot be absorbed.

§. 41. II. If the painful Disease be produced by any *acrid*, sharp-pointed, or other hard Particles brought to immediate Contact with the Extremities of the Nerves affected, the *curative Indications* then are, 1. To alter that Quality of the Blood, which furnished Matter for the Excretion of such Particles. 2. To strengthen the Force of the Action of the Heart and Arteries, that so by the Help of a brisker Circulation, the *dolorifick Particles* may be dislodged, and either forced to pass off from the Part affected, by perspiratory Ducts; or to enter into some lymphatick, and thence into sanguine Veins, and Mass of Blood, in order to be evacuated by some other Way of Excretion.

§. 42. If the immediate Contact of any acrid Particles with the Extremities of the Nerves, be owing to some *Excoriation*, or Corrosion of the covering Membrane, the *curative Indication* is then by proper Remedies to heal the excoriated Places.

§. 43. But if it is uncertain, which of the Causes specified brought on the Distemper;

per; if there are no distinguishing Symptoms; if after the strictest Examination it remains uncertain what was the Origin of the Pain; yet in such doubtful Cases, the judicious Physician may prescribe not only safely, but properly, and effectually, for the Relief and Cure of his Patient; for if, in such a dubious State of Things, he advises such Remedies as may destroy any viscid Quality, and Acrimony in the Blood, and at the same Time strengthen the Solids, dislodge dolorifick Particles, and promote Excretion by the perspiratory Ducts, there is great Probability of removing the Disease; and by such Means he may secure the most important Parts of the Body from any Attack, even in gouty Distempers. In such a Method, I have met with very happy Successes.

§. 44. It may not be amiss, if I here observe, that neither a meer *sanguine*, nor a *lymphatick Plethora* is commonly productive of Pain; for if meer Excess in the Quantity of the Blood, or Lymph could produce Pain, Pain must happen whenever such Excess happens in the Quantity of those Fluids: But the contrary is very manifest;

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for we may see some Persons, whom there is Reason to think have a sanguine *Plethora*, free from Complaints of this Sort; and we may find some *leuco-phlegmatick*, and *hydropical* People in Ease. But the Causes of Pain being those specified, §. 14, &c. it follows that the Physician's Business in every painful Distemper, is to search out, which of those Causes produced it, and to prescribe those Medicines, which may remove both the proximate, and antecedent Causes of it, and not ordinarily to diminish the Quantity of the Blood, and Lymph by Bleeding and Purging, when there is no Excess in them. When there is too much Blood, PHLEBOTOMY must be advised; and when the Blood is too thick, from a too great Proportion of the red Globules to the *Serum* of it; and so PURGING may be used, where serous Humours do abound: But in such Cases, these Evacuations are to be used, not on Account that there is a wrong *Quality* in those Fluids, but because they exceed their due *Quantity*.

§. 45. Some painful Diseases, I grant, may occur to Persons no way plethorick,
in

Of the general curative Indications. 41

in which *Bleeding* and *Purging* may, notwithstanding, be very proper, for the Sake of the Revulsion they make; as when a *gouty* Humour seizes the Head; and likewise on some other important Occasions: But even then, we must remember two Things, *viz.* 1. That *bleeding* Persons not plethorick, weakens the vital Organs; renders the Action of the Heart, and Arteries less strong than it ought to be; and consequently, that it will render the Communion of the Parts of the Blood deficient, and occasion an Increase of that viscid Quality, we should labour to remove, and of the Bulk of those Particles, which we should endeavour to comminute; unless we give Medicines to prevent such Effects: And, 2. That *purging* Bodies, in which the serous Part of the Blood does not exceed the healthful Proportion, will render the Blood too thick, and thereby prove injurious to the Patient; especially if Means for thinning, and diluting the Blood be not afterwards advised. In those Cases, where Bleeding, and Purging are requisite, we should not depend on them as the sole, or principal Means of Cure, but consider what was
the

42 *Of the general curative Indications.*

the productive Cause of the Pain, and prescribe those Medicines, which may remove it; which indeed is the rational, and proper Way of curing these Distempers.

§. 46. In some few painful Diseases, I order my alterative Remedies so as to make them very gently purgative, to increase somewhat the intestinal Evacuation, for the Sake of a little Revulsion, and to prevent an Afflux of Humours to the Part pained; but very rarely in Bodies not plethorick have I met with any Occasion to order Bleeding; the Means I have used proving effectual without it.

§. 47. I do not pretend to treat largely of painful Distempers, but only to deliver my Thoughts briefly concerning those, which are most frequent; and to illustrate the Methods of Practice I recommend to others by an historical Account of some of the Cases, which have been under my Management. And I hope the Things I shall offer to consideration, will be of some Use to young Gentlemen in the Beginning of their Practice.

§. 48. I shall distribute PAINFUL DISTEMPERS into four general Classes, *viz.*

I. Painful

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- I. Painful Distempers of the HEAD.
- II. Painful Distempers of the THORAX.
- III. Painful Distempers of the ABDOMEN.
- IV. Painful Distempers of the LIMBS;
which I shall discuss in this Order.



CHAP. II.

C H A P. III.

Containing an Account of the Head-ach, as to its Causes, and curative Indications ; with some Histories exemplifying proper Methods of Cure.

§. 49. I. **I** Shall deliver my Sentiments of those *painful Distempers* of the HEAD, which are most common, *viz.*

1. The HEAD-ACH.
2. The TOOTH-ACH.
3. The PAIN of the GUMS, JAWS, and FACE.
4. The PAIN of the THROAT in the *Angina* or Quinsey.
5. The PAIN of the EYES in the *Ophthalmia*.
6. The PAIN of the EARS.

§. 50. I. Of the HEAD-ACH. Here I must observe, that Pains of the Head are different as to the Parts afflicted with them, being either external, or internal. Sometimes

times the Pains are *external*, and only affect some Parts without the Skull; and when they are so, it may be known by pressing the Finger against the Part pained; for in such Cases, that Pressure will somewhat increase the Pain, till it be removed; but it is otherwise, when the Pain only affects Parts within the Skull; as I have often experimented in myself.

§. 51. PAINS of the HEAD, which are *external*, are the least dangerous. They happen either in the *Cutis*, or in the Muscles of the Head, or in the Membrane called *Pericranium*, or in the exterior *Periosteum*; and are commonly occasioned either,

1. By the *Pressure* of the Blood against the Extremities of the Nerves in the Coats of the capillary sanguine Arteries in the Part affected, owing to the viscid Quality of the Blood, §. 17. N^o 1. Or,

2. By a *Constriction* of some capillary sanguine Arteries (§. 17. N^o 2.) produced by too great external Cold. Or,

3. By *acrid Particles* excreted from the Blood, and brought to *immediate Contact* with

with the Extremities of the Nerves affected, §. 19.

§. 52. Persons afflicted with this Kind of Head-ach seldom apply to any Physician for Help; because the Pain is seldom very violent, or lasting: However, when a Patient desires Advice for removing any Pain of his Head, we should so examine him, as to find out whether the Seat of it is without, or within the *Cranium*.

§. 54. When the external Pain results from the *first Cause*, §. 52. N^o 1. those *Diluents*, and *Attenuants*, which will dissolve the viscid Humours, and render the Blood, and Lymph duly thin, are the proper Remedies.

§. 55. When the external Pain is produced by the second Cause, §. 52. N^o 2. the Method of Cure is to remove the Constriction, which may be accomplished by emollient Fomentations, (made *cum Mucilag. ten. Rad. Althe, & Aq. Hungaric. vel Sp. Lavendul. Mistis, &c.*) applied warm to the Part affected.

§. 55. When the external Pain arises from the *third Cause*, §. 52. N^o 3. gentle Friction with a warm Hand, or washing the Part
affected

affected with a Mixture of *Aq. Hungaric.* with common Water warm, or with any other Liquor, which may dislodge, and remove the stimulating Particles from their Contact with the Extremities of the Nerves, may afford Relief; but at the same Time those internal Medicines should be prescribed, which may strengthen the Action of the Solids, invigorate the Circulation of the Blood, if the Pulse is too feeble, and destroy the Acrimony of the animal Fluids.

§. 56. In all these *Head-achs*, outward Applications are proper, and often prove very beneficial. *Sp. Vini rect. vel. Sp. Vini camphorat. vel Sp. Lavendul.* by themselves, or mixed in due Proportion *cum Aceto*, will frequently constringe the distended Vessels, force the obstructed Fluids into their returning Veins, and in a short Time procure Ease by removing the proximate Cause of the Disease; tho', when some morbid Quality of the Blood was the antecedent Cause, proper internal Remedies for altering that Quality should always be advised, which Method only can secure the Patient from the Returns of his Malady.

§. 57. The PAINS of the *Head*, which
are

are *internal*, that is, seated in some Part within the Scull, happen either in some Part, or other of the interior *Periostrum*, or of the *dura*, or *pia Mater*; and the most frequent or proximate Causes of them are, either,

1. Too great *Pressures* against the Extremities of the Nerves affected, occasion'd by Causes already mentioned, §. 17. Or,

2. Some *acrid Particles* brought to *immediate Contact* with the Extremities of the affected Nerves, §. 19. and we may rightly distinguish, or justly infer, which of these Causes produced the Pain complained of, if the general *Diagnosticks* of the different Sorts of painful Distempers be duly consider'd.

§. 58. Some Pains of the Head, indeed, owe their Rise to Disorders in the Stomach; which is often the Case, when Pains in the Head do follow great Sickness in the Stomach; and this may depend on the *Sympathy* of the Nerves in the Stomach, and the affected Nerves in the Head.

§. 59. THIS SYMPATHY, tho', perhaps, we cannot account for it with due Clearness, seems to be the Reason, why Fractures of the Skull, Hurts of the Brain, and
extreme

extreme Pains in the Head, do bring on Sicknefs in the Stomach, and Vomitings.

§. 60. When, therefore, a Phyfician is called to a Patient, who complains of the Head-ach, he fhould always enquire into the State of his Stomach; and confider whether there is any Diftemper of it, which might occafion the Pain; and truly, in all Difeaſes of the Head, we ought to have a ſpecial Regard to the Stomach.

§. 61. The CURATIVE INDICATIONS in theſe Diftempers, §. 57, are much the ſame as in the former Sort, §. 51, &c. It is incumbent on the Phyfician, 1. to endeavour, by ſuitable Remedies, to attenuate the Blood, deſtroy its *viſcid* Quality, and render the Circulation eaſy thro' the Veſſels affected, when the proximate Cauſe of the Pain is too great a *Preſſure* againſt the Extremities of the Nerves affected. 2. To correct the *acrimonious* Quality of the Blood, and remove from an immediate Contact with the Extremities of the Nerves, any Particles adhering to them, that ſhould not be in Contact with them; when the proximate Cauſe of the Pain is that aſſign'd, §. 57. N^o 2.

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§. 62.

§. 62. If the Patient hath a sanguine *Plethora*, BLEEDING is requisite on the Account of that Excess; and we should in the first place, advise it, and then direct those Methods and Remedies, which may remove both the proximate and antecedent Causes of the Disease.

§. 63. If there is no Excess in the Quantity of the Blood, that Evacuation (§. 62.) should not commonly be used, for divers Reasons already assign'd. I may add, because the painful Distemper may be happily cured without it, as will appear from the Facts related hereafter.

§. 64. Some outward Applications are proper in these Head-achs, (§. 57.) as well as in those of the former Kind, (§. 52.) and very often contribute much to a present Relief, tho' but little to the Removal of those morbid Qualities of the Blood, which were the antecedent Cause of them. I call morbid Qualities of the Blood the *antecedent Causes*, because they are the Origin, and productive of those *Effects*, which on the Nerves, and other Vessels affected, are the proximate, or immediate Causes of the painful Distempers.

§. 65.

§. 65. I say (§. 64.) some *outward Applications* are proper ; *e. g.*

1. Suitable *Powders*, or *Liquors*, or *Steams* snuffed up the Nostrils; because they may produce Effects on the Parts within the Skull, by their *Stimulus* on the Extremities of the *olfactory* Nerves, which are so near their Origin; for that *Stimulus*, as it occasions a *Derivation*, or quicker Flow of Fluids towards the Nostrils, so a *Revulsion* from the Parts pained; and thereby a sensible Relief to the Patient, as I have often observed to be Fact in the Course of my Practice.

2. Suitable *Fomentations*, or *Liniments* applied to the Sutures of the Head; because some Parts of them may not only pervade the *Epidermis*, *Cutis*, Muscles, *Pericranium*, and the exterior *Periosteum*, but also pass to the *Dura Mater* by Means of those Fibres, and Vessels, which that Membrane sends thro' the Sutures of the Skull to the *Pericranium*.

§. 66. PERIODICAL HEAD-ACHS are to be managed as periodical, or Intermitting Fevers; Regard being had to the antecedent Causes, and the present, conjunct Symp-

toms. While I lived at *Teovil* in *Somersetshire*, a Man desired my Advice for a *violent Pain* on the left Side of his Head. He told me it came every Day about One o'Clock in the Afternoon, as I remember, and continued about four, or five Hours, and then entirely left him till the next Day about the same Time. He said, he had no Fever, no extraordinary Heat, or Thirst, but was in all Respects, as he apprehended, very well, except the Pain: However, I prescribed for him, as if he had an Intermitting Fever; the Advice succeeded, and he soon became free from his periodical Head-ach.

§. 67. Having premised these general Observations, I shall give an historical Account of some Patients afflicted with the *Head-ach*, and of the Methods, which proved effectual to their Recovery from it.

HISTORY I.

§. 68. ABOUT the Year 1720, Mrs. *Hollway*, of *Teovil* in *Somersetshire*, a Widow, aged near sixty Years, desired my Advice. She complained of a
very

very violent *Pain in her Head*, especially in the Fore-part of it, which had afflicted her several Days. I prescribed the following Remedies, in the Use of which she soon became free from her Pain.

R. Rad. Ellebor. nigr. ℥ii. Camphor. ℥i. Castor.
Ruffia ℥ss. Gum. Ammoniac. Mass. Pil. *Ruffi*,
ana ʒiss. Syr. de *Spinâ Cervin.* q. s. M. & f.
 PILULÆ mediocres; quarum cap. ii. vel iii. Vesperi &
 Mane.

R. Camphor. ʒss. Sp. Lavendul. comp. ʒss. optimè. Mis-
 ceantur, dein adde Succ. *Heder. terrestr.* ʒss. & f.
 MISTURA cephalica; cujus aliquantillum sæpe è manu
 naribus attrahendum durante Capitis dolore.

HISTORY II.

§. 69. *February* II, 1728-9, ELIZABETH SANDERS, (Servant to the Rev. Mr. *Billio*, then of *Malden* in *Essex*) aged 25 Years, desired my Advice. She complain'd that she had been for some Time grievously afflicted with *Pains* in her *Head*; but sometimes in her *Back*; sometimes in her *Side*; sometimes in her *Legs*; sometimes in her *Stomach*, and sometimes in her *Bowels*; and that, by Means of her Pains, she slept little or nothing. She said she was often

54 *Of Pain in the Head, &c.* HIST. II.

troubled with flushing Heats, and had very little Appetite to Food. She had her *Menses* regularly; went to Stool daily, but was very much grip'd, when she did it. She was free from Thirst. I prescribed for her as follows.

℞ *Mass. Pil. Ruffi*, ℥iv. *Castor. Spec. Hiera picr. ana* ℥i. *Æthiop. Mineral.* ʒi. *Rad. serpentar. virg.* Nuc. *Mojcat. ana* ʒss. *Balsam. Peru.* q. s. *M. f. Massa Pil.* & è *singulis Massæ drachmis formantur PILULÆ* N^o 9. quarum cap. iii. semel, vel bis in die pro ratione Operationis, superbibendo haustum *Pseudo-Theæ cum salviâ pptæ, Catameniis absentibus.*

§. 70. She follow'd the Directions I gave her, and became free from her Pains, and other Disorders, and recover'd her Health before she had done taking the Pills I prescribed; so that there was no Occasion for any further Advice, or of a Repetition of them.

HISTORY III.

§. 71. *March* 1735-6, Mr. ABEDNEGO PERKINS, a young Man, aged 19 Years, came to me for Advice. He was a little Man, very thin, of a clear Complexion, and

a pretty fresh Colour in his Face. He complain'd, that thro' the last six, or seven Years of his Life, he had been afflicted in the following Manner, *viz.* That commonly once or twice in a Week he had been taken, first with a *Dimness of Sight*, and a *Swimming of his Head*; which Symptoms, after some Time, went off, and were succeeded with an extreme *Pain in his Head*, and *Sickness at his Stomach*. These Disorders were attended with a sensible *Weakness*, *Trembling*, and *Sweats*. He usually went to Stool once a Day, but sometimes it was only once in two Days. For Relief, when these Pains, &c. came upon him, he used to lay down upon the Bed; and if he could sleep an Hour or two, his Pains left him. He likewise acquainted me, that he had sometimes been taken with a *Giddiness* and *Swimming* in his Head, attended with a *Sickness at his Stomach*, when he had been walking in the Streets about his Business, which lasted some Minutes, and then went off. I prescribed the following Medicines for him.

R̄ *Mercurii dulcis* gr. v. *Mass. Pil. Ruffi* ℥i. *Ol. Mentb. gut. i.* *Elixir. Proprietat. q. s.* *M. f. PILULÆ N^o vi, quarum capiat ii. horâ unâ ante decubitu-*
E 4
tum,

tum, & ii. vel iii. vel iv. mane proximo pro ratione Operationis, & sic semul singulis septimanis leniter expurgetur corpus; & diebus à purgatione vacuis utatur Elect. seq.

℞ *Rad. serpentar. virg.* ʒi. *Valerian sylvestr. Cortic. Eleutherii. Æthiop. Mineral. ana* ʒii. *Sal. Prunell.* ʒi. *Syr. Bacc. sambuc. q. s.* M. f. ELECTUARIUM, de quo capiat ʒi. bis in die, superbibendo haustum Pseudo-Theæ, cum Visc. Querc. & Lign, Quajac. Raf. pptæ.

℞ *Mass. Emplastr. Nuchalis (Batean.) q. s.* spissè super alutam extendatur, & f. EMPLASTRUM satis largum nuchæ applicandum.

§. 72. *March 25.* he came to me again, and said, that the Pills (of which he took two in the Evening, and three the next Morning) gave him seven Stools, and also purged his Head very much; that he had evacuated a pretty deal of a watery Humour from his Nostrils, and that his Head was much more lightsome for several Days after, than it had been for a long Time before: that he had taken the Electuary, and had voided a Worm by Stool; and that he had no Return of his Disorders, till the Day before, and then not to that Degree as he used to have them, only the Pain of his Head seemed as bad. I prescribed as follows.

Corpus

Corpus cum Pilulis die Martii primo præscriptis, semel singulis septimaniis lenitè expurgetur.

℞ Cortic. Peru. opt. ʒiij. Elentherii, Æthiop. Mineral. ana ʒii. Sal. Prunell. ʒi. Syr. Bacc. Sambuc. q. s. M. f. ELECTUARIUM; de quo capiat quantitatem nucis Moscatæ largæ tēr in die, superbibendo haustum Pseudo-Theæ cum Rutâ pptæ, & cum gut. 20 vel 30 Misturæ sequentis.

℞ Tinct. Antimonii, Croci, ana ʒi. & f. MISTURA.

℞ Aq. Hungaric. Succ. Rutæ, ana ʒi. Aceti Vini alb. ʒii. M. f. ERRHINUM; cujus aliquantillum naribus insuffletur ante decubitum.

§. 73. In in this Method, with the Blessing of God, in a few Weeks more he became free from those Disorders, (§. 71.) which had afflicted him so frequently for 6 or 7 Years together, and he enjoy'd a comfortable Measure of Health for some Time; but in the last Summer he was afflicted with a Cough, Shortness of Breath, and want of Appetite, and went to some Relations in *Bedfordshire*, hoping the Country Air might contribute to his Recovery from them; but there he grew worse, and at last died in that Country.

HISTORY IV.

§. 74. *March* 21. 1735-6. Mrs. MARY GREENE, aged about 35 Years, desired my Advice. She complain'd that she had been four Days afflicted with a violent *Pain in the Fore-part of her Head*, without any Intermission; but said, that otherwise she was well in Health. I prescribed for her the following Remedies.

R. Sp. Sal. Armoniac. Elixir. Proprietat. ana zi. & f. MISTURA attenuans; cujus cap. gut, xxx. bis terte in die in haust. Aquæ puræ.

R. Sp. Vini Camphorat. Tinct. succini, ana zii. M. f. FORTIS cephalicus; quo tempora, frons, & nares, subinde, ut opus fuerit, foveantur.

§. 75. The next Day she was much better, and the Day following quite free from her Pain.

HISTORY V.

§. 76. *Nov.* 1. 1736, my Advice was desired for Mrs. MARY TIBBOLS, aged 12 Years. She complain'd of a great *Pain in her Head*,
and

and *Stomach*; of a Cough, Shortness of Breath, and want of Appetite, which had afflicted her constantly for two Months; and she said she grew worse. I prescribed for her as follows.

℞ *Æthiop. Mineral.* zii. *Mass. Pil. Gummos.* *Myrrhæ, ana* zi. *Ol. Junip. chym. gut.* vi. *Balsam. Capiv. q. s.* *M. f. PILULÆ N° 48. cum Flor. sulph. involvantur*; quarum capiat iv. vesperi, & manè superbibendo haustum *Pseudo-Theæ cum rad. Enutæ camp. pptæ.*

§. 77. *Nov. 8.* she came to me again, and inform'd me she was much better; that the *Pain* of her *Stomach* was gone, and that in her Head much abated; and that her Appetite to Food, and her Breathing were better. I prescribed for her the following Pills.

℞ *Gum. Ammoniac.* *Myrrh. ana* ziss. *Mass. Pil. Ruffi,* zi. *Ol. Junip. chym. gut.* 24. *Balsam. Capiv. q. s.* *M. f. PILULÆ N° 48. cum Flor. Sulph. involvantur*; quarum capiat iv. vesperi, & manè, superbibendo haustum *Infusi Flor. Chamæm.*

§. 78. *Nov. 17.* she came to me again, and told me she was free from her *Pains*, and *Shortness* of Breath, and had a good Stomach to her Food; and only some Remains

mains of her Cough, which in a little Time left her upon using the following Medicine, which I prescribed.

℞ Balsam. Capiv. ℥i. cujus cap. gut. xv. vesperi, & manè cum aliquantillo Pulv. sacchar. alb. mistas, superbibendo haustum decocti rad. Enulæ camp.



C H A P. IV.

Containing an Account of the Tooth-ach, and of Pains in the Gums, Jaws, and Face, as to their Causes, and curative Indications; with some proper Histories.

§. 79. 2. **I** Am in the next Place to consider the PAINS, which happen to the TEETH.

These proceed either, 1. from *external*; or, 2, from *internal* Causes.

§. 80. 1. The *external* Causes of the *Tooth-ach* are those Things, which rot the Teeth, and make Hollownesses, or Cavities in them; and when a Cavity is once made, some little Bit of Flesh, when a Person is eating it, will often get into the hollow Tooth, and some Times lodge a long while in it, till it putrefys, and stinks most loathsomely, like rotten Carrion, and which contracting a corrosive Quality, corrodes not only the Tooth, but the Nerves adjacent; the Effect of which is exquisite Pain.

§. 81. Here I must observe, that the first
Decay

Decay, and Rotting of the Teeth, is' commonly occasion'd by supping Tea, Coffee, Broths, and other Liquors, too hot; and by that imprudent Custom of picking the Teeth with a Pin, or Needle, or some other hard Instrument instead of a Quill. Which Things People surely would avoid, if they did consider how necessary to a good Digestion, and Nutrition it is, that their Meat be well chewed before it be swallowed into their Stomachs.

§. 82. For the Cure of Pains of the Teeth produced by these Causes, §. 80, 81. it will be requisite for the Patient to wash his Mouth frequently with warm Water, and to use one, or other of the following Gargarisms, or such like, to cleanse and heal the morbid Parts.

℞ *Aq. Menthae*, ℥iij. *Sp. Vini rect.* ℥vi. *Tinct. Myrrh.* ℥ii. *M. f. GARGARISMUS detergens*, ut opus fuerit, subinde utendus.

℞ *Alum. petral.* ℥i. *Dissolv. in Aq. pura* ℥ij. *Dein adde Vini alb.* ℥ij. *Sp. Vini camphorat.* ℥i. *M. f. GARGARISMUS*, ut prior utendus.

℞ *Balsam. Capiv. gut.* xx. *Dissolv. cum Vitell. Ov. q. f. Dein adde Vini alb. Montan.* ℥iv. & *f. GARGARISMUS detergens.*

§. 83.

§. 83. One or other of these Gargarisms §. 82. in these Pains of the Teeth, may become proper, and needful : Likewise one, or other of the Gargarisms prescribed §. 87. may be suitable, and prove serviceable ; and a judicious Mind will readily know, which of them, and when they are like to be useful.

§. 84. 2. The *internal Causes* of the *Tooth-ach* are commonly saline, acrid, and corroding Particles excreted from the Blood, and brought to an immediate Contact with the Extremities of the Nerves affected, §. 19. or viscid Humours in the Blood, (§. 17. N^o 1.) tho' not so frequently : These are the proximate Causes : The antecedent are a scorbutick, *acrimonious*, or *viscid* Quality of the Blood ; one, or other, or both of them.

§. 85. If there be no Swelling of the Gums, and other Parts adjacent, we have but little Reason from these Pains to apprehend a viscid Quality in the Blood ; but if the Gums, and the Parts adjacent to them swell, we may with great Probability infer, that there is a viscid Quality in the animal Fluids.

§. 86. The rational Methods therefore for curing these Pains of the Teeth, §. 84, are,

1. To

1. To order such outward Applications to the Parts affected, as may either sheathe the acrid, sharp-pointed Particles, or alter their Figuration, and so prevent their pricking the Nerves; and such other Applications as may promote any easy Circulation of the Fluids thro' the Vessels affected, and help the Discharge of the morbid Humours from the Parts affected into the Mouth.

2. To prescribe those Medicines, which may destroy the morbid Quality of the animal Fluids; whether that be acrimonious, or viscid.

§. 87. The first Intention, §. 86. may be obtain'd by such Remedies as the following, *viz.*

I. *R. Sp. Vini camphorat. ʒi. plus vel minus pro ratione Effectus. Lactis recentis ʒiij. M. f. GARGARISMUS, cujus Coch. i. tepefactum in ore teneatur paulisper, & dein expuatur; tum Cochleare alterum, eodem modo, parti affectæ applicetur, quamdiu opus fuerit. Vel,*

II. *R. Tinct. Myrrb. ʒi. (plus vel minus pro ratione Effectus.) Lactis rec. ʒiij. M. f. GARGARISMUS, ut prior utendus. Vel,*

III. *R. Rad. Althæ. ʒls. Cortic. Ulmi interior, Lign. Sassafr. Ras. ana ʒii. Coq. cum Aq. puræ ʒxii. ad lbs. Dein coletur Liquor, & f. GARGARISMUS, ut prior utendus. Vel,*

IV.

IV. ℞ *Aq. puræ, Aceti. ana* ℥ii. *M. f.* GARGARISMUS,
ut prior utendus.

V. ℞ *Vini rubri Hispan. ℥iv. Tinct. Myrrh. ℥i. M. f.*
GARGARISMUS, ut prior utendus.

VI. ℞ *Pannum linteum quater duplicatum, & cum Oleo Oli-
varum madefactum, & applicetur parti affectæ; & reitere-
tur Applicatio toties quoties occasio postulaverit.*

§. 88. The *first* and *second* Gargarisms, (§. 87.) may relieve the Patient by altering in some Measure the Figuration of the dolorifick Particles, and dislodging, or moving them from their Contact with the Nerves affected.

§. 89. The *third* Gargarism, (§. 87.) and the *oily* Application (§. 87. N^o VI.) may remove the Pain by sheathing as it were, the acrid cutting Particles, and preserving the Nerves from being farther wounded by them.

§. 90. The *fourth* Gargarism (§. 87.) may be serviceable to the Patient, as the acid Salts in it may destroy the Texture, or Figure of those alkaline, caustick Salts, which were excreted from the Blood to the Parts affected, and immediately produced the Pain; and I have known it very effectual to this Purpose.

§. 91. The *fifth* Gargarism, §. 87. may relieve the Patient by constringing the Vessels, promoting the Course of the Fluids thro' them, and preventing an Afflux of Humours to the Parts affected. By this Remedy, I have myself sometimes been freed from Pain in my Teeth.

§. 92. If the Gums swell much, the Applications of Leeches to them, or making Incisions in them with a Lancet, thereby emptying in some Measure the Vessels in the Part affected, may give a Relief to the Patient; and the Use of emollient Gargarisms made with *Rad Althææ, vel Fol. Malvæ*, and such like, will become needful.

§. 93. The second Intention, §. 86. may be gained by Medicines form'd of *Antimon. diaphor. Ethiop. Mineral. Mercurius alkalizatus*, &c. but frequently by Medicines compounded of a fixed *alkaline, vegetable Salt*, and a *vegetable Acid*; if the Acid be in such a Proportion as somewhat too predominate. This Kind of Medicines is adapted both to destroy the alkaline Acrimony; and the Viscidity, or Glewiness of the animal Fluids.

§. 94. Some Persons, it may be, imagine the *Tooth-ach* to be a very trifling Pain.
gree ;

These have never felt it in any great Degree; and tho' such may smile at a Physician's taking Notice of it, yet they who have been in Agonies by it, will not think it unworthy of his Consideration. In the Course of my Practice, at distant Times, I have been sent for unto two Patients that were not only thrown into violent Fevers, but became exceedingly delirious by the Extremity of this Kind of Pain; but they both happily recover'd.

§. 95. I confess I have not had many Patients complaining of this Malady; most People being ashamed to go to a Physician, when they think they have nothing else to say to him, but that their *Teeth ach*. When the Pains of the Teeth are frequently returning, abiding, and urgent, they discover a morbid State of the Blood; and on such Occasions it might be happy for the afflicted, if they would apply to some skilful Physician, and give him the Opportunity of ordering, not only Things which may free them from their present Misery, but also Things which may correct the ill State of their Fluids, which occasion'd it, and prevent those other Diseases, which may otherwise arise from the morbid Qualities of them.

§. 96. I acknowledge I have not writ any Histories relating to this Distemper; but having lately suffer'd under it myself, will give an Account of my Case, and the Method of my Cure.

HISTORY VI.

§. 97. *February* 13th, 14th, and 15th, I had PAINS of my *Teeth*, and *Jaws*, on the Left Side of my Face, but they were very moderate, and I did nothing to remove them. They abated, and left me till *Friday, Feb. 24*, in the Afternoon. Between Three and Four o'Clock, just as I had finished my Dinner, the Pains return'd with great Violence: They began by some Teeth of the upper Jaw on the left Side of my Face; but soon spread to my Temple, Ear, lower Jaw, and indeed all over that Side of my Face, and were exceeding strong. I held warm *Water and Vinegar* often in my Mouth, which in Time past had been of Use on such Occasions; but that Remedy now availed nothing. Therefore I order'd a fine Linnen Rag, three or four Times doubled, to be dip'd in *Ol. Olivar. tepefact.*

fact. This I apply'd to the Place first and principally affected, and kept it there, and likewise rub'd my Cheek, &c. with some of the same. Upon this Application, the Increase of the Pains presently ceased; and they soon began to abate, and continued to grow less and less, so that by Seven o'Clock in the Evening I was perfectly easy.

§. 98. *February 25.* just after Dinner, the Pains return'd to the same Teeth, &c. with exquisite Force. I immediately apply'd a Rag wetted with the Oil, to the Place, as before; and the Pains entirely left me in less than an Hour.

§. 99. *February 26,* in the Morning, the Pains return'd into the Parts fore-mention'd, §. 97. and were pretty strong: They were very much abated, and almost gone before Twelve o'Clock; but return'd again before Two of the Clock, and went off before Three o'Clock. I apply'd a Rag wetted with the *Oil* both in the Forenoon, and Afternoon as before, which greatly relieved me: But apprehending these Pains to be occasion'd by a feverish Disposition of my Blood, from an acrimonious and viscid Quality of it, I order'd the following Draught

70 *Of the Tooth-ach, and Pains* HIST. VI.

for myself, which I began with this Evening; and at first took it once every six Hours, till I had taken three of them; and afterwards two a Day, till I had taken seven of them.

R. Sal. Absinth. ʒi. Succ. Limon. ʒss. Aq. Lactis alex. ʒi. Peon. comp. ʒss. Syr. è Cortic. Aurant. ʒi M. f. HAUSTUS.

§. 100. *February* 27. presently after Dinner the Pains of my Teeth, &c. return'd pretty violently; I apply'd the *Rag wetted with the Oil* as before, and they entirely left me in less than half an Hour, and I have felt nothing of them for many Weeks. All the while my Appetite to Food was very good, and in all other Respects I was well.

§. 101. PERIODICAL TOOTH-ACHS, which do not yield to any of the fore mention'd Remedies, may happily be cured as periodical *Head-achs*, §. 66.

§. 102. 3. Those PAINS, which happen in the *Gums*, or *Jaws*, or *Membranes*, and *Muscles* of the Face, as to their Causes, and curative Indications; and as to the Methods and Remedies proper for removing them,

them, may be easily understood from what has been said concerning Pains of the Teeth.

§. 103. It is of great Service in these Diseases to obtain plentiful Evacuations from all the Glands, which empty their Fluids into the Mouth; and a sensible Relief generally follows a copious *Spitting* of a thin watery Humour; and such Discharges are very much promoted by suitable *Gargarisms, Fomentations, &c.* Before I leave this Subject, §. 102, it may not be altogether useless to mention the following Observations, *viz.*

§. 104. 1. That the TEETH, GUMS, and JAWS, as well as other Parts of the Body, are liable to *rheumatick*, and *gouty* Pains; that is, those Causes, which produce rheumatick Pains in the Limbs, and gouty Pains in the Joints, may likewise produce them in these Parts; and when the Pains the Patient complains of are such, he must be treated as if he had a Rheumatism, or Gout; Regard being had to the Part affected.

§. 105. And we may conclude the Pain in these Parts, (§. 104,) to be *rheumatick*, if the Patient has been lately afflicted with the Rheumatism; and especially, if upon the

ceasing of rheumatick Pains in the Limbs, these have risen. The like may be said of *arthritick* Patients on the like Occasion.

§. 106. 2. That it is a very imprudent Thing for People to have their Teeth drawn meerly on the Account that they suffer much Pain in them; both because adult Persons must not expect new Teeth to arise in the Places of those that are drawn out; and because by proper Means they may be eased without that Operation.

§. 107. 3. It is as indiscreet, the Way of some Persons in running to *Quacks* to be cured of the *Tooth-ach*; especially to those, whose Method of curing is violently to press against the Nerves of the Teeth that are pained, till the Pain ceases; because it is no proper Cure: The violent Pressure only bruises, and renders *paralytick* those Nerves; takes away indeed the Sense of the Pain, but without removing the Cause; prevents the Nutrition of such Teeth, and often occasions them, in a little Time, to fall out of their Sockets. Having thus taken Notice of some Things, which deserve Consideration, I proceed to relate a few Histories, exemplifying proper Methods for curing these Diseases, §. 102.

HISTORY

HISTORY VII.

§. 108. *August 1.* 1728, being sent for, I visited the Rev. Mr. A——R, a *Clergyman*. He had a Fever, a great *Pain in his Jaws*, and such a Stiffness in the Muscles, that he could not move them to chew any Thing, nor open his Teeth wide enough to bite a Piece of thin Bread and Butter; besides which, he had painful *Ulcers* in his Mouth. I can't say whether the Fever was *symptomatical*, or the primary Disease; and therefore shall not relate what I order'd in regard to it; but give an Account of what I directed for the Removal of his other Complaints. I prescribed the two following Gargarisms, to be used alternately, and very frequently.

℞ *Sal. Nitri*, ℥ii. *Aq. Pulegii*, *Aceti opt. ana* ℥iij. *Syr. Bacc. Sambuc.* ℥ii. *M. f. GARGARISMUS detergens.*

℞ *Cortic. Ulmi interioris* ℥i. *Bals. Tolu* ℥ii. *Gum. Mastich*, ℥ii. *Aq. Benedict.* simpl. q. s. *M. f. s. a. decoctum ad lbs.* dein *Liquoris colati* ℥vii. *Adde Mellis Rosati* ℥i. *℞ f. GARGARISMUS sanans.*

§. 109. *August 2.* I visited him, and found him a little easier, but the Stiffness
of

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of his Jaws the same. I prescribed for him as follows, having order'd him to go on using the *Gargarisms*, as before directed.

℞ *Camphor.* ℥i. *Ol. Chamem.* ℥i. *Ol. Absinth.* gut. vii.
optimè misceantur; dein adde *Sp. Vini rect.* ℥i. *M. f.*
LINIMENTUM: quo Fauces subinde manu calidâ, per
 horæ quadrantem, inungantur.

§ 110. *August 3.* I visited him again, and found him much better, free from his Fever, and that he could open his Mouth a little; but the Stiffness of the Muscles was not gone, neither were the *Aphthæ* healed. I order'd him to continue using the *Gargarisms* and *Liniment*, as before directed.

§. 111. *August 4.* I visited him again, and found that he remain'd free from his Fever; could move his Jaws with more Ease, tho' not so well as in Health; and the Ulcers in his Mouth were much better, tho' not quite healed. I prescribed for him as follows.

Repetatur Gargarismus detergens cum additione Alum ru-
pei ℥i. & utatur ut prior.

℞ *Cortic. Ulmi interioris* ℥i. *Gum. Mastich* ℥ii. *Bals.*
Tolu. ℥i. *Aq. Benedict. simpl.* q. s. m. coq. ad ℥vi. *Dein*
Liquori colato adde Tinct. Myrr. ℥ii. *Sp. Vini Camphorat.*
 3vi.

zvi. *Mel. Rosat.* ʒi. M. f. GARGARISMUS *sanans*,
alternatim cum Gargarismo deterg. frequenter utendus.

§. 112. *August 6.* I visited him again, and found him in all Respects better, that he could move his Jaws well, and chew his Food; and the *Aphthæ* were almost gone. I prescribed the following Gargarism, in the Use of which he soon became perfectly free from the Disorders of his Mouth.

R. *Rad. Althæ.* ʒii. *Fal. Malv. m. ff. sem.* *Fenic. dulc.* ʒiiij. *cog. cum Aq. puræ q. s.* *Dein Liqueoris colati* ʒvii. *Adde Mellis Rosati* ʒi. M. f. GARGARISMUS *emolliens*, *subinde utendus.*

HISTORY VIII.

§. 113. *March 4.* 1731-2, my Advice was desired for ELIZABETH CONSTABLE, of the Parish of *Witham* in *Essex*, a poor Maid, aged 23 Year: She complain'd of *violent Pains* in her *Mouth*, especially in the Roof of it, and in her *Gums*; also of *Pains* sometimes in her left *Ear*, and that Side of her Face, and sometimes on the other; and said, that she had been thus at Times
ever

ever since the preceding *Michaelmas*; and that for the last Week her Pains were continual, and more violent. I directed for her the following Remedies, which soon relieved her, and in a few Days were effectual to free her from her Pains.

Bibat Haustum decocti Lign. Quajaci Rasurarum bis in die.

R Cortic. Ulmi interior. ℥ii. Coco. (a) *Anglicè dict.*
℥i. coq. cum Aq. puræ lbij. ad lbii. Dein coletur Liqueor
pro GARGARISMO frequentèr, & calidè utendo.

Faucæ & Genæ, & Partes circa Aures semel vel bis in
die, cum Sp. Vini rect. parum foveantur. EMPLASTRA
Epispastica Brachiis internis infra cubitos applicentur.

§. 114. *March 9.* I directed the following Decoction for her, on the Account of a pretty violent Looseness, which happen'd to her. The Apozeme answer'd the Intention, and help'd to correct the Acrimony of the Blood.

R Cortic. Cinnam. acut. ℥ii. Nuc. Moscat. contus. ℥i. Cre-
tæ alb. pulv. ℥ii. Coq. cum Aq. puræ lbij. ad lbii. Dein
Liquor. colato adde Sacchari alb. q. s. ad Saporem gratum,
& f. APOZEMA, cujus tepidè bibat Haustum post sin-
gulas Alvi Dejectiones liquidas.

(a) Coco are the Shells of the Nuts of which Chocolate is made.

HISTORY

HISTORY IX.

§. 115. *December 21, 1735.* being sent for, I visited Mr. SAMUEL MASON, aged about 28 Years. He complain'd of a very great *Pain in his Face*, especially in his right *Cheek*, and *Jaw*: He had likewise a Pain and Heaviness in his Head: His whole Face was much swelled, and his Eye-lids; so that he could open them but a little Way: The right Side of his Face was most swelled; and the Swelling on that Side extended downwards, over the Jaw, to his Throat, and occasion'd a Difficulty of Swallowing. The Spittle in his Mouth was very little, and very viscid. He was hot and thirsty, and his Pulse quicker than in Health: But these febrile Symptoms I judg'd to be symptomatical, because his Pain preceded them. I prescribed for him the following Remedies.

℞ *Lapid. Contrayerv.* ℥ss. *Antimon. diaphoret.* *Coccinel.* ana gr. v. *Aq. Menth.* ℥iss. *Aq. Bryon. c.* Syr. è succ. *Limon.* ana ℥ii. *Sp. Nitri dulc. gut.* x. M. f. HAUSTUS attenuans sextâ quâque horâ bibendus.

℞ *Aq. puræ* ℥i. *Aceti opt.* ℥ss. *Sp. Vini Camphorat.* Tinct. *Myrr.* ana ℥ii. M. f. FORTUS parti affectæ tepidè applicandus.

℞ *Sal.*

℞ *Sal. Prunell.* ℥ii. *Dissolv. in Aq. puræ* ℥iss. *Dein adde*
Aceti opt. ℥iss. *Syr. Baec. Sambuc.* ℥i. *M. f. GARGA-*
RISMUS frequenter, & tepidè utendus.

§. 116. *December 22.* I visited him again, and found him easier in his Face; and the Swelling somewhat abated, but the Disorders of his Head remain'd; his Throat was better, and he had spit a pretty deal. I order'd him to go on in the Use of the Medicines prescribed the Day before, and only added the following to them.

℞ *Sp. Vini Camphorat.* *Sp. Lavendul. c.* *Tinct. succini,*
ana ℥i. *Aceti opt.* ℥iij. *M. f. FOTUS cephalicus,* quo
Tempora, Frons, & Nares, subinde foveantur.

§. 117. *December 23.* I visited him again, and found him in all Respects better; his Heat, and Thirst, and Swelling, and Pain, were almost gone; but his Spirits were low. I prescribed for him the following Medicines.

℞ *Antimon. diaphor.* *Lapid. Contrayerv. ana* ℥ss. *Sal.*
succini v. gr. iii. *Camphor. gr.* ii. *Syr. Croci q. s.*
M. f. BOLUS, octavâ quâque horâ sumendus, superbi-
bendo Cochl. ii. *Misturæ sequentis.*

℞ *Aq. Menth* ℥iij. *Aq. Pæon. c.* ℥ss. *Sp. Lavendul. simpl.*
℥ii. *Sacchar. alb. q. s. ad saporem gratum,* & *f. MIS-*
TURA.

§. 118.

§. 118. *December 24.* I visited him again; all his Symptoms were good, but I thought it proper to purge him on the going away of the Swelling, and therefore prescribed the following Potion, and took Leave.

℞ *Sal. succini* vol. gr. iv. *Tinct. sacrae* ℥ss. *Syr. de Spinâ Cervin.* ℥ss. *M. f. POTIO* purgans, cras manè sumenda.



C H A P. V.

Containing an Account of Pain in the Throat, or Quinsy, as to its Causes, and curative Indications, with suitable Histories.

§. 119. 4. **P**AIN in the THROAT comes next under our Consideration. When this is attended with a Tumour of the Muscles of the Throat, and a Difficulty of swallowing, or breathing, or of both, the Disease is called the *Quinsy*. This sometimes is occasion'd by a preceeding Fever, which also accompanies it; and then, as in the Small Pox, and in other Fevers, it is purely *symptomatical*, and not the Thing we here take Notice of, tho' some of the Remedies I shall mention may be as proper in those Cases too.

§. 120. This Distemper (§. 119.) has different Denominations, as the Pain, and Tumour happens either to the interior, or the exterior Muscles of the Throat, &c. Thus we have those Appellations *Cynanche*, *Paracynanche*,

racunanche, *Synanche*, and *Parasynanche* : But as the Differences signified by those Words, make no Difference in the Method for treating such Patients, nor in the Remedies to be administered, it would be fruitless to run this Disease into Subdivisions.

§. 121. This Distemper is sometimes occasion'd by the *Coldness of the Air* ; e. g. by a Person's going out of a very warm Room directly into very cold Air ; which suddenly constricts the Muscles, and Vessels of the Throat ; closes the Endings of the Perspiratory Ducts, diminishes the Discharge thro' them ; that is, it does so when the Strength of the Action of the Heart, and Arteries, or the Force of the circulating Blood is not sufficient to overcome the Impression of the circumambient cold Air, and remove the Impediment of the insensible Perspiration, and the Obstruction of the Circulation thro' the constricted Vessels.

§. 122. Sometimes this Disease of the Throat may be brought on by too great a *Moisture of the Air*, when the Strength of the vital Organs is not sufficient to repell the Particles of Water diffused in the Air, and crowding into the *Vasa inbalantia*, and stopping the Discharge of the perspirable

G

Matter

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Matter from the exterior Superficies of the Throat, Jaws, and Neck; but these are external antecedent Causes.

§. 123. The internal antecedent Cause commonly is a *viscid Quality* of the Blood; and the *proximate Causes* of these Distempers (§. 119, &c.) are commonly *too great Pressures* against the Extremities of the Nerves affected, (*vid.* §. 17. N^o 1.) and we may well conclude this is the Case, when the diseased Parts become tumefied, and inflamed; and I may add, that often there is an *Acrimony* in a viscid Blood; which should be remembred, and consider'd.

§. 124. The *curative Indications* to be regarded in the Management of Patients under this Sort of Painful Diseases, may be easily understood from what has been said §. 39.

§. 125. This Disease (§. 119.) commonly begins with the Sense of a Pricking, and of Soreness in the Throat; then as the Obstruction to the Course of the circulating Fluids continues, a Tumour of the Parts affected comes on, with a Difficulty first of Swallowing, and then of Breathing.

§. 126. If the Obstructions be not soon removed,

removed, but the Swelling of the Parts still increases, there comes on an Inflammation of the Muscles affected; the Pains become pulsative, or throbbing, and the stagnant Humours putrify, and suppurate.

§. 127. From what has been observed, (§. 125, 126.) we may easily perceive, that very different Medicines are the proper Remedies in the different Periods of this Distemper; and that what is proper, and needful, when the Pain is recent, and only of a few Hours Continuance, may be very improper, and hurtful to the Patient, in the Progress of the Disease, that is, when the Pain is throbbing, and the Tumour in a State of Maturation, & *sic vice versa*.

§. 128. Indeed it is very seldom that a Physician is called in, while the Tumour is as it were in *Embryo*, and just forming, so seldom, that in all my Practice I don't remember but very few Patients under this Distemper, who sent for me before the Parts were inflamed, and in a State of Suppuration; however, I shall consider what is proper to be done for Persons under this Distemper, while the Pain is recent, and the Tumour is incipient; and then what is

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needful, when the Tumour is in a State of Suppuration.

§. 129. 1. In the *first Stage* of this Disease, while the Uneasiness of the Throat, and the Pain are moderate, before any Inflammation of the Parts affected, and a symptomatic Fever come on, I would recommend the following Method, *viz.*

1. To advise the drinking plentifully of those Liquors, which may conduce to dilute, and thin the Blood, and to destroy any acrimonious, as well as viscid Quality of it; *e. g.* Barley Water, or common fair Water, made warm, and sweetned a little with fine Sugar, with 20 or 30 Drops of *Sp. Nitri dulc.* to every half Pint.

2. To prescribe those Medicines to be taken inwardly, which may subserve the same Purposes; and likewise such *Gargarisms, Fomentations, or Cataplasms*, as may remove Obstructions, alter or dislodge any acrid Particles from their immediate Contact from the Extremities of the Nerves affected, and obtain an easy Circulation of the animal Fluids thro' their respective Vessels. In this Manner we should endeavour to remove the Pain, and the incipient Tumour,

mour, and to prevent Inflammation, and Fever.

§. 130. 2. In the *second Stage* of this Distemper, when the Tumour is suppurating, besides such Medicines as may attenuate the Blood, and correct its Viscidity, and Acrimony; which are needful in this, as well as in the first Period, those outward Applications must be directed, which may destroy any Acrimony in the suppurating Humours; relax, or render more dilatable the distended Vessels, and facilitate the Rupture of the Membranes, which inclose the suppurating Matter; and so to hasten that Discharge of it, which assuredly will bring Ease to the Patient. *Vid. Hist. X. XI. XII.*

HISTORY X.

§. 131. *Wednesday, April 14, 1731.* near Ten o'Clock at Night, I was sent for to M. BROWN, of *Witham* in *Essex*, a poor Widow, aged about 80 Years. She was taken ill the 11th Day of this Month, with a *Pain* behind her *right Ear*, which was follow'd with a Swelling: The Pain and Swelling extended to her right Eye over her

right Cheek, and down that Side of her Neck, cross her Throat, and down to her Breast; the Pain in those Parts had been throbbing, and the Swelling of them increasing ever since *Monday*, and to that Degree, that when I visited her, she could not swallow any Thing; she was then become *hot*, and *thirsty*, and her Pulse was pretty quick. I only prescribed the following external Remedies, because she could swallow nothing.

℞ *Æthiopis Mineralis* zii. *Unguenti Florum Sambuce*, *Unguenti de Althæâ*, ana ʒss. *Olei succini* zi. *Misceantur pro LINIMENTO*, quo partes affectæ manu tepidâ quartis horis fricentur.

℞ *Æthiopis Mineralis* zii. *Spermatis Ceti* zi. *Conservæ Fructuum Cynosbati* zii. *Syrupi de Althæâ* ziiij. *Olei Juniperi chymici* gut. xii. & fiat MISTURA, cujus aliquantillum frequenter in ore paulisper teneatur, & dein expuatur.

§. 132. *April* 15. I visited her again, and was inform'd, that the Medicines had been used according to my Direction; that the Swelling was broke, and had discharged a good deal of filthy Matter, and that she could swallow again. I directed some *emollient*, and *detergent* GARGARISMS to be made

made at home ; and order'd a Mixture with *Antimon. diaphoret. Coccinel. Sal. Absinth. &c.* which soon took off her symptomatic Fever, and she recover'd.

HISTORY XI.

§. 133. *September* 21. 1737. being sent for, I visited Mr. E——D S——H, aged about 27 Years. He had been very ill some Days with a Cold, succeeded with an Inflammation and *Pain in his Throat*, and a great Difficulty of swallowing. The Tumour was in a State of *Suppuration*, and his Pains were violent. His Mouth was foul, the little *Saliva* in it was very viscid. He was costive, and his Urine high colour'd. I prescribed for him the following Remedies.

℞ Sal. Prunell. ℥ii. Aq. Laëtis alex. Aq. Menth. ana
℥iſs. Syr. de Althæ. Syr. Balfamic. ana ℥ſs. M. f. Ju-
LAPIUM, cujus cap. Cochli. i. ſingulis, vel alternis horis.

℞ Sal. Prunell. ʒi. Dissolv. in Mucilag. tenuis Rad. Al-
thæ. ʒiv. Dein adde Aceti acerrimi, Syr. Bacc. sambucc.
ana ʒiii. M. f. GARGARISMUS frequenter utendus.

℞ Sal. Prunell. ʒi. Dissolv. in Aq. Menth ʒi. Dein adde
Syr. Bacc. sambuc. ʒi. & f. MISTURA, cujus Cochl. fs.
G 4 subinde

subinde in Ore teneatur, donec Saliva abundaverit, & dein expuatur.

℞ *Sp. Vini rect.* ℥ii. *Tinct. Myrrhæ gut.* xx. & *f. MIS-TURA*, de quâ *gut.* x. vel xii. cum frustulo sacchar. albiss. horis quartis, vel sextis.

℞ *Gum. Ammoniac.* ℥ii. *Dissolv. in Aq. Fœnic. dulc.* ℥ii. *Dein adde Acceti opt.* ℥ii. *Tinct. Myrrhæ* ℥ii. *M. f. FOTUS*, quo Gulæ & Fauces tepidè foveantur.

℞ *Sal. Vulg. Sal. Prunell. ana* ℥ii. *Dissolv. in Aq. Pulegii* ℥vi. *Dein adde Syr. de Alibæ.* ℥i. *Syr. de Spinâ Cervin. Ol. Oliv. ana* ℥ss. *M. f. ENEMA* tepidè infundendum.

§. 134. *February 22.* I visited him again, and was inform'd that the Tumour was broke, and a great deal of filthy Matter discharged, that his Pains were in a Manner gone, and that he could swallow pretty well; but his Pulse was too quick, and his Urine not yet come to its natural State. I order'd him to continue the Use of the *Gargarism, Drops, and Foment*, and prescribed the following Draught.

℞ *Lapid. Contrayerv.* ℥ss. *Antimon. diaphor. gr.* vii. *Sal. succini vol. gr.* iii. *Coccinel. gr.* v. *Aq. Lactis alex.* ℥iss. *Aq. Pæon. comp. Syr. Balsamic. ana* ℥ii. *Sp. Nitri dulc. gut.* xii. *M. f. HAUSTUS* horis sextis ad iii. vices bibendus.

§. 135. *Feb.* 23. I visited him again, and found all his Symptoms better; and therefore only prescribed the following *Apozeme*, and took my Leave of him, directing him to be purged a second Time.

℞ *Glycyrrh.* ʒi. *Fol. Senæ* ʒii. *Sem. Carui* ʒi. coq. cum *Aq. puræ* q. s. ad ʒiv. Sub finem Decoctionis addendo *Mannæ opt.* ʒiss. Dein col. & f. APOZEMA purgans, cujus cap. ʒiij. primò manè, & post tres horas, si opus fuerit, sumat partem ejusdem reliquam,

HISTORY XII.

§. 136. *February* 18. 1737-8. I being sent for, I visited Mr. A——M L——y, aged about 26 Years: He had been ill two or three Days, with a violent *Pain* and Inflammation in his *Throat*; the Parts were so much swelled, that it was with great Difficulty he swallowed the thinnest Liquids. The Tumour was in a State of Suppuration, and his Pains at this Time were extreme: He had likewise a Pain in his Head, as well as in his Throat. I prescribed for him the following Remedies.

℞ *Sal. Prunell.* *Sal. Absinth. ana* ʒi. *Aq. Lactis alex.* ʒii. *Aq. Pulegii, Syr. de Althæ. ana* ʒi. M. & f. JULAPJUM, cujus cap. Coch. i. horis alternis.

℞ Ol,

℞ *Ol. Olivæ* ℥i. *Ol. Absinth. chym. gut.* vi. *M. f.* LINIMENTUM, quo Gula & Fauces subindè per horæ quadrantem tepidè inungantur.

℞ *Sal. Prunell.* ℥ii. *Dissolv. in Decocti Cortic. Ulmi interioris* ℥iv. *Dein adde Mucilag. tenuis Rad. Alibæ.* ℥iij. *Syr. de Alibæ.* ℥i. *M. f.* GARGARISMUS frequenter tepidè utendus.

℞ *Sp. Vini camphorat.* *Aq. Hungaric. ana* ℥ii. *Aceti opt.* ℥ss. *M. pro* FORTU, quo Tempora, & Nares subinde foveantur, durante Capitis dolore.

℞ *Sp. Lavendul. comp.* *Tinct. Myrrh. ana* ℥i & *f.* MISTURA, cujus subindè cap. gut. vii. vel viii. in Frustul. Sacchar. alb.

§. 137. *February* 19. I visited him again, and was inform'd, that the Tumour was broke, that a great deal of filthy Matter had been discharged from his Throat; that he could swallow pretty well; and that his Head was easy. I order'd him to continue the Use of the *Gargarism*, and *Drops*, as before, and prescribed the following Julep.

℞ *Sal. Absinth.* ℥ii. *Sal. Prunell. Coccinel. ana* ℥i. *Succ. Limon.* ℥i. *Aq. Lactis alex.* ℥ss. *Aq. Pæon. comp.* ℥i. *Syr. Bacc. sambuc.* ℥ss. *Sp. Nitri dulc. gut.* xxv. *M. f.* JULAPIUM attenuans, de quo cap. unum Cochleare largum omni Trihorio, Phialâ prius agitata.

§. 138. *February* 20. I visited him again, and found him in all Respects better;
and

and therefore I order'd him to go on this Day according to the last Directions, and to be purged the next ; and for this Purpose prescribed the following Apozeme, and then took my Leave.

℞ Glycyrrh. incis. ℥i. Fol. Senæ ℥ii. Sem. Carui ℥i. coq. cum Aq. puræ q. s. ad ℥iv. sub finem Decoctionis addendo Mannæ opt. ℥iss. Dein col. APOZEMA purgans; cujus cap. ℥ii primo Mane, & post horas tres cap. Coch. i. largum singulis horis, donec purgare incipiat.



CHAP. VI.

Containing an Account of Pains of the Eyes, as to their Causes, curative Indications, and Methods of Cure, with suitable Histories ; and likewise an Account of Pains in the Ears.

§. 139. 5. **P**AINS of the EYES are those uneasy Sensations, which attend an Inflammation of their *Tunics*, especially of that called *adnata*.

§. 140. This Inflammation (§. 139.) is manifest by a Redness of the white Tunicle, of the Eye ; which is more or less, as the Number of the capillary Vessels obstructed, and distended with Blood, is greater, or lesser.

§. 141. The antecedent Causes of these Distempers are either *external*, or *internal*.

§. 142. The *external*, antecedent Causes may be Sand, or Dust, or any hard Matter blown into the Eyes, or a Bruise, or a cold Wind constringing the external Parts
of

Of Pain in the Eye, or Ophthalmy. 93

of the minute Arteries, and thereby occasioning Obstruction, and Distention of them, as described §. 17. N° 2.

§. 143. The *internal* antecedent Causes are, either viscid Humours, or acrid Particles in the Blood, §. 17. N° 1. and §. 19.

§. 144. But whatever be the antecedent, the proximate Causes are either painful Pressures against the Nerves affected, or the immediate Contact of some acrid Particles with their Extremities.

§. 145. If the *Ophthalmy* was produced by some external Cause, there is commonly very little, or no Occasion for internal Medicines; and as for outward Remedies, the Inflammation of the Eye requires the same, whether its antecedent Cause was external, or internal.

§. 146. If Sand or a Fly, or any other hard Matter happen'd into the Eye, Endeavours must be used to get it out.

§. 147. When the *Ophthalmy* results from internal Causes, *viz.* a viscid, or acriminous Quality of the Blood; one, or other, or from both conjunctly, the *curative Indications*, as to internal Remedies may be easily

easily deduced from what has been said,
§. 39, 41.

§. 148. Outward Applications are very needful for removing these ocular Diseases; and the grand Point to be intended by them, is to obtain for the obstructed Fluids a free Course, or an easy Passing of them along the Vessels in their usual Circulation. If we gain this Point, the Distention or Swelling of the obstructed Vessels subsides, the Redness of the Eye disappears, and the Pain ceases. Remedies proper, and effectual for this Purpose, may be seen in the Histories subjoined.

§. 149. I may further observe, that a Flux of *lymphatick* Humours, more, or less saline, commonly attends these Distempers; but the Methods, which are effectual to take off the Inflammation, do generally remove this Symptom also; I proceed now to relate the Cases of some Patients.

HISTORY XIII.

§. 150. *May 15. 1733.* my Advice was desired for Miss ANN, the Daughter of
Mr.

Mr. *John Greene* (a Gold Wyer Drawer) aged eight Years. She had been afflicted with a very painful Inflammation of her *Eyes*, off and on for above a Twelve-month, attended with a Flux of Humours to them. She had used the Advice of several Persons, but without any Benefit. I prescrib'd the following Remedies, by which, with the divine Blessing, she soon recover'd.

℞ *Elix. Proprietat.* ℥ss. cujus cap. gut. xx. vel xxx. singulis diebus in frustulo Sacchari chrySTALLINI, superbibendo Haustum Decocti Ligni Sassafras.

℞ Sacchari Saturni ℥i. Aq. Benedict. simp. ℥vi. Sp. Vini rect. ℥ii. & f. MISTURA, quâ partes affectæ bis, vel ter, vel quater in die foveantur.

HISTORY XIV.

§. 151. *August 31. 1733.* my Advice was desired for Mrs. M—— A——, aged about 22 Years. She had an Inflammation of her right Eye, and of the Eye-lids, which were very much swell'd. I prescribed as follows.

℞ Sp. Vini camphorat. Aq. Rosar. ana ℥ss. M. pro COLLYRIO subindè utendo.

§. 152. *September 2.* I visited her, and found

found that the Inflammation remain'd; and therefore I prescribed the following Remedies.

℞ *Sal. Mirab. Glauberi* ℥i. *Sal. Prunell. gr.* vii. *Dissolv.*
in *Aq. Fœnic. dulc.* ℥iij. & f. *POTIO purgans*, crastino
Manè cum regimine sumenda.

℞ *Sacchari Saturni* ℥i. *Aq. Benedic. simp.* ℥vi. *Sp. Vini*
rect. ℥ii. *M. pro COLLYRIO*, subinde frigidè utendo.

§. 153. *September 7.* I visited her again, and found the Inflammation of her Eye almost gone, and the Swelling of her Eyelids down: I order'd her to continue the Use of the *Collyrium* last advised, and prescribed the following Medicines to attenuate the Blood, and increase the Excretion by insensible Perspiration, which soon compleated her Cure.

℞ *Rad. Serpentar. virginian. Antimon. diaphoret. Coc-*
cinell. ana ʒss. *Sal. Mart. Riverii gr.* xii. *M. & f.*
PULVIS attenuans, in vi. *Chartulas distribuendus*, qua-
rum cap. unam bis in die cum uno Cochleari *Misturæ*
sequentis mistam, superbibendo *Hauftum Decocti Ligni*
Sassafr.

℞ *Aq. Pulegii, Syr. Balsam. ana* ʒss. & f. *MISTURA pro*
Pulveribus.

HISTORY XV.

§. 154. *July 1. 1735.* Mr. SAMUEL
HUGHES, of *Shrewsbury* in *Shropshire*, but
then

then in *London*, aged about 22 Years, came to me for Advice. His *Eyes* were *inflamed*, especially the left; he had been troubled with a great *Flux of Humours to his Eyes*, and a *Weakness of Sight* for the last ten Years. The external *Tunics*, especially that of the left Eye, look'd very thick, and dull; and the Sight of his right Eye appear'd very dim: he could read but very little, even in large a Print, with both his Eyes open; but with his left Eye, the other being shut, he could not distinguish the largest capital Letters in the large Folio Bible printed at *Amsterdam*: He could not bear the Light, but was necessitated to go with his Eyes, in a great Measure cover'd from it: He had been under the Management of a Physician for a Month before he came to me; who at last told him, that he had a *Cataract* at least on his left Eye, and that he must have Patience till it was ripe, and then have it couch'd, for nothing else could cure him. To this Effect the Doctor spoke to him, as I was inform'd.

§. 155. The Case of this young Man was indeed very melancholy, and attended with Difficulty, as it was of so many Years Con-

H

tinuance,

rinuance, and as the Disease was greatly increased. However, I knew there were Methods proper to be advised, and Medicines that might be prescribed with Safety, and Propriety, tho' the Success desired appear'd uncertain. I told this Patient, that I thought his Case required the Use of Remedies for some Months; and that if he had Resolution to persist in the Use of them so long as it should be needful, I would advise for him.

§. 156. He readily consented to observe my Directions; and therefore I prescribed for him the following Medicines.

℞ *Æthiop. Mineral.* ʒii. *Mass. Pil. Ruffi* ʒiſs. *Camphor.* ʒſs. *Ol. Succini gut.* xii. *Extract. Gentian.* q. ſ. *M. f. PILULÆ N° 48.* cum *Fl. Sulphur. involvantur*; quarum cap. iv. bis in die, superbibendo Haustum *Pseudo-Theæ cum Lign. Sassafr. Raf. vel cum Lign. Guajac. Raf. pptæ.*

℞ *Aq. Ophthalmic. sapphirin.* ʒi. pro COLLYRIO bis in die oculis applicando.

§. 157. *July* 10. he came to me again; his Eyes look'd better; the Flux of Humours to them was abated, and he could bear the Light better. I prescribed for him as follows.

Pergat

Pergat in usu Aquæ Ophthalmic. saph. ut antea.

EMP. NUCHAL. (in Pharmacop. Batean. præscript.) cum guttis aliquot Olei succini Nuchæ applicetur.

℞ *Sp. Vini rect.* ʒvi. *Aq. Hungaric.* ʒii. *M. f. FOTUS,* quo Frons, & Tempora semel, vel bis in die foveantur.

℞ *Sp. Vini camphorat.* *Sp. Lavendul. comp. ana* ʒi. *Succ. Rutæ recentè express.* ʒii. *Aceti opt.* ʒss. *M. f. ER-RHINUM,* cujus aliquantillum Naribus insuffletur horâ unâ ante decubitum.

℞ *Rad. Curcumæ* ʒii. *Æthiop. Mineral.* ʒii. *Camphor.* ʒi. *Myrrh.* ʒi. *Ol. Succini gut.* xii. *Extract. Gentian. q. s.* *M. f. PILULÆ N^o 48. cum Fl. Sulph. involvantur,* quarum cap. iv. bis in die.

§. 158. *July* 16. he came to me again for further Advice. The Flux of Humours was more abated, his Eyes were more clear, and he could bear the Light still better. I prescribed for him as follows.

℞ *Rad. Curcumæ,* *Sal. Prunell. ana* ʒi. *Sal. Martis* ʒss. *Myrrh.* ʒiss. *Ol. Succini gut.* xii. *Extract. Gentian. q. s.* *M. f. PILULÆ N^o 48. cum Flor. Sulphur. involvantur,* quarum cap. iv. bis in die superbibendo Haust. *Decoct. Lign. die Julii 1^o præscript.*

Pergat in usu Remediorum externorum die Julii 10^o præscriptorum.

§. 159. *July* 23. he came to me again. His Eyes were much more clear, and strong ;

and could bear the Light still better. I try'd him as to his Reading; and with his *right Eye*, which was his best, (the *Left* being shut) he could read a few Words, and but a few, in the great *Amsterdam* Bible; but could not read any one Word in a Chapter with his left Eye, when his right was shut; but could with his left Eye read the Word *Hosea* in very large Capitals. I prescribed for him as follows.

Pergat in usu Remediorum externorum die Julii 10^o præscriptorum.

R. Rad. Curcume ʒi. Æthiop. Mineral. ʒii. Myrrb ʒi. Ol. Succini gut. xii. Extraet. Gentian. q. s. M. f. PILULÆ N^o 48. cum Fl. Sulphur. involvantur, quarum cap. iv. bis in die, superbibendo Haustum Decoct. Lign. Sassafr. Raf.

§. 160. *July* 29. he came to me again. He continued still recovering his Sight; he had *no Flux of Humours* to his Eyes, and could now, with his *right Eye* (the other being shut) read some of the running Titles on the Top of the Pages in the *Amsterdam* Bible. I prescribed for him as follows.

Pergat in usu Remediorum externorum, ut antea, & in usu Pilularum die Julii 23^o præscriptarum.

§. 161. *August 5.* he came to me again, and I found he continued recovering his Sight; for I examin'd him, and now (the right Eye being shut) he could with his *left* Eye read pretty readily the running Titles on the Top of the Pages in the *Amsterdam* Bible. I prescribed for him as follows.

Pergat in usu *Pilularum* die Julii 23^o præscript. & Remediorum externorum antè præscriptorum.

℞ *Balsam. Capiv.* ʒss. cujus cap. gut. xx. Vesperi & Manè cum aliquantillo Pulv. Sacchar. albi mistas.

§. 162. *August 12.* he came to me again. His Sight continued to grow stronger. I order'd him to continue using the external Remedies as before directed, and only prescribed the following Drops.

℞ *Sp. Sal. Armoniac. Sp. Lavendul. comp. ana* ʒii. & f. MISTURA, cujus capiat gut. xx. bis in die in Haustum Pseudo-Theæ, cum Rad. Chinæ & Lign. Guajac. Ras. pptæ.

§. 163. *September 4.* he came to me again; and then with both Eyes open he could not only read the common Text in a Chapter of the *Amsterdam* Bible, but also in the *Bishop of Worcester's Octavo* Bible; and with his right Eye shut he could

read the common Text in the *Amsterdam* Bible, but not in the Bishop of *Worcester's*; and with both Eyes open he could read in *Bill* and *Barker's octavo* Bible. I now order'd him to lay aside the Use of the outward Medicines before directed, and prescribed for him as follows.

Lenitè expurgetur Corpus cum *Sal. Mirab. Glauber.* ʒvi.
vel ʒi. in *Aqua puræ* lbs. solut.

℞ *Tinct. Antimon.* ʒss. cujus capiat gut. xx. bis in die in
Haust. *Pseudo-Theræ* cum *Lign. Sassafr. Raf. & Herb.*
Heder. terrest. pptæ.

℞ *Sacchar. Saturni* ʒi. *Aq. Benedict. simpl.* ʒi. M. f.
COLLYRIUM omni nocte oculis applicandum.

§. 164. *September* 12. he came to me again. I try'd him, and found he could pretty readily read in *Bill* and *Barker's octavo* Bible, and that his Eyes look'd well, and remain'd free from any Flux of Humours, and therefore I order'd him to continue the Use of the last Medicines so long as he found Occasion, and took my Leave of him.

§. 165. Thus in about ten Weeks, this young Man, who was like to have been blind all his Days, and to have suffer'd continual Misery and Pain in his Eyes, with the
Blessing

Blessing of God, not only recover'd Ease, but also his Sight.

§. 166. What I principally aim'd at by the internal Medicines I prescribed, was to correct *acrimonious* and *viscid* Qualities I apprehended to be in his Blood, to render the Circulation of his Fluids easy, and to increase the Excretion by insensible Perspiration.

§. 167. 6. PAINS in the EARS do likewise deserve our Consideration, as they often give great Disturbance to the Persons afflicted with them. These are either with Tumour, and Inflammation, or without them.

§. 168. If the Pain is attended with Tumour and Inflammation, it will be discover'd by the Quality of the Pain, which in such Cases is in some Measure a *throbbing Pain*: And if a Patient comes to us, and on Examination, we find that he has been some Days under his Malady, and feels a Sort of Pulsation in the Part affected, we may with a great deal of Probability conclude there is a Tumour, and that it is in a State of Suppuration.

§. 169. In these Cases, §. 168, we must

not endeavour to discuss the obstructing Humours, but try, by proper Application, to assuage the Pain, and perfect the Suppuration; for when the Tumour is come to such a State, this is the only rational and proper Method of treating the Patient, and there can be no entire Freedom from Pain, till the Imposthumation breaks; but then generally comes the desired Ease.

§. 170. When the Pain is attended with a suppurating Tumour, the following Remedies may be useful.

℞ *Ficum ping.* ℥ii. *Micæ Panis albæ.* *Fol. Malvæ,* ana ℥i. *Coq. cum Aq. puræ q. s. ad debitam consistentiam; dein pistentur in Mortario marmoreo cum Croci Pulv.* ℥i. *Ol. Oliivar.* ℥i. *Ol. Absinth. chym. gut. x.* & f. CATAPLASMA: cujus uncia una super Pannum linteum satis duplicatum parti affectæ tepidè applicetur, & octavâ quâque horâ repetatur Applicatio, quamdiu opus fuerit. Vel,
℞ *Cæpe, cum Sem. Cymini Pulv.* ℥i. *Croci pulv.* ℥ss. *sub Cineribus assatum, N° i.* *Ol. Anethi* ℥i. *vel* ℥ii. *Contundantur & f. CATAPLASMA ad usum eundem.*

§. 171. If the Pain be recent, that is but of a very few Hours Continuance, one or other of the following Remedies may be sufficient.

℞ *Ol. Oliivar.* ℥ss. cujus guttæ aliquot in aurem affectam tepidè immittentur. Vel,
℞ *Ol. Oliivar.* ℥ii. *Ol. Succini gut. iv.* & f. MISTURA ad eundem usum. Vel,
℞ *Mucilag. tenuis Rad. Althææ. Lactis rec. ana* ℥ss. & f. MISTURA eodem modo applicanda.

C H A P. VIII.

Containing an Account of the Palpitation of the Heart, as to its Causes, curative Indications, and Methods of Cure ; illustrated with some suitable Histories.

§. 172. II. **I** Proceed now to consider the PAINFUL Distempers of the *Thorax*. The most frequent of these are the following, *viz.*

1. *The Palpitation of the Heart.*
2. *Pain in the Breast.*
3. *Pain in the Side.*
4. *Pain in the Back above the Diaphragm.* And
5. *Pain in the Shoulder.*

§. 173. I shall observe a few Things of each of these, §. 172. and begin with the first of them, *viz.*

1. The PALPITATION of the HEART. This is a very uneasy, violent, and painful Motion of the Heart, both in its *Systole*, and *Diastole*. The Contractions and Dilatations

lations of the Heart are sometimes more, sometimes less frequent than in Health; but always with a greater, and sometimes an unequal Force.

§. 174. This Disease admits of a great Variety of Degrees; and this deserves Notice, that sometimes it is hardly perceived by the Pulse in the Wrist, tho' it be very troublesome, when we may plainly feel it by laying one's Hand on the Region of the Heart; and may also discern it by the very visible, and unusual Motion of the Breast.

§. 175. The proximate Causes most frequently are, in my Opinion, viscid, and acrid Humours in the Blood, which passing thro' the Heart, stimulate it to more forcible Contractions; or an *Acrimony* in the Fluid contain'd in the *Pericardium*, and there acting as a *Stimulus*.

§. 176. The curative Indication are here to free the Blood from acrid, viscid, and stimulating Humours.

HISTORY XVI.

§. 177. *December* 20. 1728, having been sent for, I visited Mr. JOHN CARTER, a Surgeon,

Surgeon, at *Witham* in *Essex*, aged about 26 Years. I found him labouring under a *violent Palpitation of the Heart*, attended with a great *Difficulty of Breathing*, and a tickling *Cough*. His Pulse was very intermitting; and sometimes very strong, and at other Times very weak; and as unequal in the Times, as in the Force of the Pulsations.

§. 178. He told me that he had been taken with an uncommon Disorder, which for several Weeks increased on him; that his first Complaint was a Loss of Appetite, attended with *sick*, and *faint Fits*, tho' short; and a *tickling Cough*, which in the Night frequently waked him out of Sleep; which Symptoms continued, and at last were attended with the Palpitation of his Heart, and Difficulty of Breathing before-mention'd, §. 177. I prescribed for him as follows.

Mittatur sanguis è Brachio ad ℥xii. quamprimum.

℞ *Camphor. pulv.* ℥ss. *Sp. Lavendul. c.* ℥ii. *optimè miscantur, dein adde Tinct. Castor. Carminativ. Sp. Nitri dulc. ana* ℥i. & f. MISTURA cardaca, cujus capiat gut. 40. pro re natâ in Hauſt. Vini alb. & Aq. font. miſt.

℞ *Rad. serpentar. virg.* ʒss. *Nuc. Moscat.* ℥ss. *Cinnab. Nativ.* ʒi. *Milleped. ppt.* ʒii. *Castor. Russiæ, Croci, Anglic.*

*Anglic. ana ℥ss. Camphor. gr. v. Balsam. Tolu. ʒss.
Balsam. Peru. q. s. M. f. Massa Pilul. & à singulis
Massæ Drachmis formentur PILULÆ N^o ix. quarum ca-
piat iv. quartis vel sextis horis.*

§. 179. He presently found Relief in the Use of these Remedies. The Palpitation of his Heart, and Difficulty of Breathing, were immediately and greatly abated, and every Day sensibly diminished, and his Cough became less frequent and less violent. By *December* the 27th he was quite free from the Palpitation of his Heart. The Medicines agreeing well, and proving so beneficial to him, thro' the Blessing of God, I did not think it proper to make any Alteration in them, but advised him to continue the Use of them so long as they did him Service, and he wanted them.

§. 180. He afterwards inform'd me, that he believed it might be a Month he used the Medicines before all his Complaints were quite eradicated.

§. 181. I will only add, that the Way of preparing the *Tinct. Castorei carminativa* may be seen in the *Appendix* to my *Treatise of the Small Pox*, N^o 14.

HISTORY

HISTORY XVII.

§. 182. *April 14. 1733*, being sent for, I visited E—B—, Esq; a young Gentleman, near 25 Years old. He told me, that for the four last Years he had a very broken State of Health; he complain'd that he often had a *Palpitation of his Heart*, and especially when he was in Bed, and when he walk'd: When he walk'd, he said, with the Beating of his Heart, it seem'd to him as if he had a great Weight on it, and a Pulse all over him; he complain'd likewise that he was often much afflicted with a *Pain in his Head*; and that when he had it, it was so violent, that (as he express'd it) he knew not whether he walk'd upon his Head, or his Heels. He had frequent *Tremours*, and sometimes *Twitchings* in his *Arms* and *Thighs*; and his *Spirits exceeding low*, except some short Intervals. He complain'd also that he had frequent *Pains*, and *Weariness* in his Legs, as if there was no Life in them; that he had a *Dimness before his Eyes*, and a *Difficulty of Breathing* at Times; that his TONGUE was
always

always *white*, and that he was sometimes very *cold*, and sometimes very *hot*; that he slept badly, except after Exercise; that his *Urine* was generally *pale*, except after Riding; that he went to Stool every Day, and sometimes twice, and that his Stools were commonly loose. He told me he had drank the *Spaw* Water the last three Weeks, and had a pretty good Appetite to Food since he used them. I prescribed for him as follows.

℞ *Sal. Martis Riverii* gr. iii. *Sal. Prunell.* gr. vii. *Rad. Gentian.* ℥ss. *Campbor.* gr. iii. *Syr. Balsamic.* q. s. *M. f. BOLUS* inaurandus, & *Vesper*i & *Manè* sumendus, superbibendo unum *Hauft.* sequentium.

℞ *Aq. Cinnam. hordeat.* ℥viiss. *Aq. Cinnam. fort.* ℥vi. *Sp. Lavendul. comp.* ℥ii. *Sp. Nitri dulc. gut.* 40. *Syr. Balsamic.* ℥ss. & *f. MISTURA* in iv. *Hauft.* dividenda.

℞ *Aq. Cinnam. hordeat.* *Aq. Pæon. comp. ana* ℥i. *Gas Sulphur. recentèr ppt.* ℥ii. *Sp. Lavendul. comp. gut.* 60. *Sacchar. albiss.* q. s. *ad saporem gratum.* *M. f. JULAPIUM*, de quo capiat *Cochl.* i. vel ii. in *Hauftu* largo *Aq. puræ*, ut opus fuerit, contra *Languores*.

§. 183. *April* 17. I visited him again; he told me that he had taken the Medicines I had prescribed for him, (§. 182.) according to my Directions; that the *Pain of the Head* was very much abated; that he had not those

those *Twitchings* in his Arms and Thighs he complain'd of; nor such frequent *Tremours* as he had before; that the *Palpitation of his Heart* was not so frequent, nor so violent; that now he had no Weariness in his Legs; that he slept a great deal better; that his Urine was not so pale; that he went to Stool once every Day, and not so loose; that his Spirits were much better; that he had not been so chearful and well since his Return from *Montpelier* into *England*, which was three Years before. His Pulse was regular, of a good Strength, and not so quick as when I first saw him. I prescribed for him as follows.

Pergat in usu Boli & Hauft, die April. 14^o præscript. ut antea.

℞ *Aq. Cinnam. bord.* ℥i. *Aq. Cinnam. fort.* ℥vi. *Sp. Lavendul. comp.* ℥ii. *Gas Sulphur. rec. ppt.* ℥iss. *Syr. Balsamic* ℥ss. *M. f. JULAPIUM cardiacum*, de quo *Coch. i.* vel ii. per se vel cum Hauft. *Aq. fontan. in Languoribus, & Respirationis difficultatibus.*

§. 184. *April 23.* I visited him again, when he told me that he was more free from the *Head-ach* than he had been for the five last Years preceding the Use of the Medicines I had advised; that his Spirits were better,

better, and his Mind more chearful, and that he had not those Confusions of Spirits, which he used to have; that he was free from those Vicissitudes of *Heat* and *Cold*, which he had, before he sent for me; that he had not had above five or six *Twitchings*, since he came under my Care. He likewise said that he was less troubled with the *Palpitation of the Heart*, excepting that the *Saturday* Night before, when he was in Bed, after riding pretty much that Day, he had a Fit of it, which was pretty violent for a little While: His *Tremours* had left him, and his Appetite and Digestion, he said, were good. I prescribed for him as follows.

Perfistat in usu *Boli & Haust.* die Aprilis 14^o præscript. & *Julapii* die Aprilis 17^o præscript.

R̄ Rad. *Enulæ camp.* Camphor. ana ʒi. Ol. Nuc. Moscat. Ol. Menth. ana gut. vii. M. f. PULVIS, deïn cum Bombice, & Panno linteo formetur, ut artis est, Culcitra Cordis Scrobiculo applicanda.

R̄ Camphor. ʒss. Sp. Lavendul. comp. Aq. Hungaric. ana ʒiſs. Aceti distillat. ʒi. M. f. FORTUS cephalicus, quo Nares & Tempora, si redierit Capitis dolor, foveantur.

§. 185. May 2. I visited him again, when he inform'd me, that *April* 29. he walk'd
in

in *Kensington* Gardens from Six o'Clock in the Evening till between Eight and Nine, only in a Silk Coat and Silk Waistcoat, and afterwards found he had taken Cold, and had some Return of his *Tremours*, and somewhat of the *Palpitation* of his Heart; but was otherwise pretty well. I prescribed for him as follows.

℞ *Rad. Gentian.* ℥ss. *Sal. Prunell. gr.* vii *Sal. Martis. Riverii, Flor. Sulphur. Camphor. ana gr.* iii. *Bals. de Mechâ gut.* v. *Syr. Balsamic. q. f.* M. f. *BOLUS* inaurandus, & *Vesperi & Manè* sumendus, superbibendo unum *Hauft. sequentium.*

℞ *Aq. Cinnam. bord.* ℥vii. *Aq. Cinnam. fort. Sp. Lavendul. comp. ana* ℥ii. *Sp. Nitri dulc. gut.* 40. *Syr. Balsamic. ℥ss. & f.* MISTURA in *Hauft. iv. dividenda.*

§. 186. *May 7.* I visited him again, when he told me that his Cold was better; that his Water was of a natural Colour; that he slept well, and had a good Appetite; but that he had something of the *Head-ach* at Times. I prescribed for him as follows.

℞ *Rad. Gentian. ℥ss. Sal. Martis Riverii, Camphor. Croci, ana gr.* iii. *Syr. Balsamic. q. f. M. f. BOLUS* inaurandus, & bis in die sumendus, superbibendo unum *Hauft. seq.*

℞ *Cortic. Peru. opt. ℥vi. Rad. Zedear. ℥ii. Aq. fontan. bullientis q. f. Stent in Digestione fervidâ & clausâ per*
I
horas

horas iv. Dein Liquoris colati ℥vi. adde Aq. Cinnam. fort. ℥iss. Sp. Lavendul. c. ℥ii. M. f. APOZEME in Haust. iv. dividendum.

℞ Camphor. ℥ss. Sp. Lavendul. c. Aq. Hungaric. ana ℥ii. M. pro Fortu cephalica, quo Nucha, & Nares, & Cranii Saturæ, ut opus fuerit, foveantur.

§. 187. *May 14.* I visited him again, and found him free from his Disorders, and therefore took my Leave of him.



C H A P. VIII.

Containing an Account of Pains in the Breast, Side, and Back above the Diaphragm; and likewise of those in the Shoulders, as to their Causes, curative Indications, and Method of Cure, with some Histories.

§. 188. 2. **T**HE PAIN in the BREAST, or Chest, is a Malady, which pretty often occurs. By the Breast I mean the anterior Part of the *Thorax*, inclusive of the Muscles, Membranes, and Forepart of the Ribs.

§. 189. These Pains are either *dull*, and heavy, or *acute*, and pungent.

§. 190. 1. The PAINS which are *dull* and heavy, may be of different Degrees; and sometimes the Patient only complains of an uneasy Straitness cross his Chest: In Cases of this Kind, the Action of the Muscles in Respiration is generally perform'd with some Difficulty, in Proportion to the

Degree of the Pain or Straitness that afflicts them.

§. 191. These Pains, §. 190, commonly arise from an obstructed or difficult Passing of the Fluids thro' the Vessels of the Part affected, owing to a Glewiness or *Viscosity* of them, as the antecedent Cause.

§. 192. The curative Indication is to remove the viscid Quality of the animal Fluids, and render the Circulation thro' their Vessels easier. *Vid.* §. 39.

§. 193. 2. If the Pains are very *acute*, and pungent, they usually are the Effects of some *acrid Particles*, brought to immediate Contact with the Extremities of the Nerves affected.

§. 194. The curative Indications, when the Pains are of this Sort, §. 193, are to dislodge, or remove from Contact with the Nerves the stimulating Particles, and to correct the Acrimony of the Blood, §. 41.

§. 195. 3. The PAINS which are felt in the SIDE above the Diaphragm, come next into our Consideration. These happen sometimes in the *right*, and sometimes in the *left* Side of the Body; sometimes in the external Muscles, where they frequently are *spasmodic*; and those which are such, may be under-

understood, as to their Causes, and curative Indications from what will be said under the Title of *Cramps*.

§. 196. Sometimes they happen in the intercostal Membrane, and then resemble *pleuritic* Pains: But even then there is this Difference, *viz.* that under pluritic Pains, there are Obstructions in capillary sanguine Arteries, and an Inflammation of the Parts affected with a most acute Fever; whereas the Pains under our present Notice have neither Inflammation, nor Fever attending them.

§. 197. The Distribution of these Pains, their Causes, curative Indications, and Remedies are the same with those in painful Diseases of the Breast, §. 189, *ad* §. 194.

§. 198. Suitable *Fomentations*, and *Liniments* applied warm to the Parts affected, often relieve Patients afflicted with these Distempers.

§. 199. 4. PAIN in the *Back* above the *Diaphragm* is another Malady of the containing Parts of the *Thorax*. This happens either in the muscular Parts of the Back, or in the *Periosteum* of the Vertebres of the Spine, or in the posterior Part of the *Pleura*, or intercostal Membrane.

§. 200. The Causes, curative Indications, and Remedies, are the same as in the foregoing Diseases, §. 195.

§. 201. 5. PAIN in the Shoulder, that is, in the Joint between the *Scapula*, and the Os *Humeri*, has the same Causes and curative Indications, and requires the same Remedies as the *rheumatick* Pains of the Limbs; an Account of which may be seen in their proper Place.

HISTORY XVIII.

§. 202. Jan. 28, 1735-6, in the Morning, Mr. M——L, Oilman, aged about 44 Years, came to me for Advice: He complain'd that he had been for some Weeks troubled with a *great Pain in his Side*, which grew worse, and hinder'd his Sleeping. I prescribed for him as follows.

Rz *Sperm. Ceti* gr. xv. *Sal. Succini* vol. *Camphor.* ana gr. v. *Syr. de Alibæ.* q. f. *M. f.* Bolus inaurandus, & immediate sumendus, tepidè superbibendo Haustum largum Aquæ puræ cum aliquantillo Vini mont. mistæ, & cum Saccharo albo parum edulcatæ.

Rz *Maff. Pil. Matthæi.* *Sperma Ceti*, ana ʒss. *Sal. Succini* vol. *Camphoræ*, ana gr. iii. *Syr. de Alibæ.* q. f. *M. f.* Bolus inaurandus, & horâ decubitûs sumendus, tepidè

tepidè superbibendo Haustum feri Lactis cum Vino mont.
ppti.

℞ Balsam. Capiv ʒi. Dissolv. cum Vitelli Ovi ʒiij. Dein
adde Syr. Balsamic. ʒi. Aq. Pulegii ʒiiss. & f. MIS-
TURA, cujus cap. Coch. i. largum bis in die.

℞ Sp. Vini Camphorat. Tinct. Succini, ana ʒii. Aceti opt.
ʒiiss. M. pro Foru, quo pars affecta, bis in die, te-
pidè foveatur.

§. 203. Jan. 30. in the Forenoon I vi-
sited him, and found him much bet-
ter; and prescribed for him the following
Remedies; and order'd, that after he had
taken the *Bolusses* this Day prescribed, he
should every Morning take two Spoonfuls
of the Mixture made with the *Balsam.*
Capiv. &c. fasting, and twenty or thirty
Drops *Sp. C. C.* two or three Times a
Day, in a Dish of Chamomile Flower Tea,
and embrocate his Side with the *Foment*
in the Mornings, and to use the *Liniment*
at Night; and in two or three Days he be-
came quite free from his Pains.

℞ Antimon. diaphor. ℥ss. Rad. Serpentar. virg. Sal. Sue-
cini vol. Coccinell. ana gr. v. Syr. Balsamic. q. f. M.
f. BOLUS inaurandus, & horâ quartâ pomeridianâ su-
mendus, tepidè superbibendo Haustum Liqueoris cujus-
libet.

℞ *Mass. Pil. Matthæi* ℥ss. *Rad. Serpentar. virg.* *Sal. Succini* vol. *Camphor. ana* gr. v. *Syr. Balsamic.* q. s. *M. f.* BOLUS inaurandus, & horâ decubitus sumendus, tepidè superbibendo Haustum feri Lactis cum Vino mont. ppti.

℞ *Ol. Olivæ.* ℥ii. *Ol. Carui cbym.* gut. x. *M. f.* LINIMENTUM, quo pars affecta, omni nocte per horæ quadrantem tepidè inungatur,

HISTORY XIX.

§. 204. *Oct.* 15. 1735. Mr. JOSHUA BARDWELL, aged 36 Years, came to me for Advice: He complain'd that for two, or three Years he had been afflicted almost every Day with a *violent Pain*, beginning in his *Back* under his *left Shoulder*, and shooting forward into his *left Breast*; which continued sometimes two or three Hours, and sometimes but a Quarter of an Hour; but that it had been much worse for the last two Months. His *Urine*, he said, was very high-colour'd, like strong Beer, especially when he had the Pain.

§. 205. I prescribed the following Medicines for him, in the Use of which he
soon

soon became perfectly free from his Complaints.

℞ *Balsam. Capi.* ʒi. *cujus cap. gut. xx.* *Vesperi & Manè*
cum aliquantillo *Pulv. Sacchari albi* mistas, superbi-
bendo *Hauftum Pseudo-Theæ* cum *Rad. Bardanæ* ma-
joris pptæ.

℞ *Sperm. Ceti* Div. *Camphor.* ʒii. *Myrrh.* ʒii. *Syr.*
Croci q. s. *M. f. PILULÆ N° 48.* cum *Flor. Sulphur.*
involvantur, quarum cap. iv. horâ unâ ante prandium,
& cœnam, superbibendo *Hauftum Pseudo-Theæ* supra
præscriptæ.



CHAP. IX.

C H A P. IX.

Containing an Account of Pains in the Stomach and Bowels, as to their Causes, and curative Indications, with the Consideration of divers Matters subservient to a right Understanding of these Painful Distempers.

§. 205. III. **I** Am in the next Place to consider the PAINFUL DISTEMPERS of the *Abdomen*: These affect either the internal, and contained, or the external and containing Parts of it. I shall first treat of the internal painful Diseases, and begin with those of the *Stomach*, and *Bowels*.

§. 206. PAINS in the *Stomach*, and *Bowels* are produced, either,

I. By those Causes, which occasion *too great Pressures* against the Extremities of the Nerves affected; the most frequent Causes of which are, either,

1. *Viscid*

1. *Viscid Humours* in the Blood ; or,
2. *Elastick Air* in the Cavity of the Stomach, or of the Bowels.

§. 207. 1. VISCID HUMOURS in the Blood, or Particles too bulky for an easy Circulation may produce Pains in the Stomach and Bowels. *Vid.* §. 17. N^o 1.

§. 208. PAINS of the *Stomach*, which results from these Causes, §. 207. generally are not only violent, but *permanent*, attended with *Vomitings*, and follow'd with an *acute Fever* ; which are SIGNS that the Part affected is inflamed.

§. 209. The general curative Indications in Diseases of this Kind, §. 207. have been already taken Notice of, §. 39. Regard must be had both to the Part *inflamed*, and to the *viscid* Quality of the Blood.

1. As to the *Part inflamed*, the right Intentions of Cure are to dilute and thin the obstructing Humours, and relax the Coats of the obstructed Vessels ; by which Means, if used soon enough, the Obstructions may, with the divine Blessing, be removed, an easy Circulation of the Fluids obtain'd, and a Period to the painful Pressures against the Extremities of the Nerves : And to these Purposes *Barley Water*, a mucilaginous *Decoction*

coction of *Marsh-mallow Roots* or *Leaves*, or of common *Mallow Leaves* made with *Water Gruel*; *Linseed Tea*, and such-like emollient-Drinks, as well as emollient and attenuating Medicines, may very much conduce.

2. As to the *viscid Quality* of the Blood, this may be alter'd and destroy'd by such Remedies as are prescribed in the Histories of painful Diseases of this Sort, *viz.* Hist. XX. XXI.

§. 210. 2. PAINFUL PRESSURES against the Extremities of the Nerves in the *Stomach* and *Bowels* likewise may be made by ELASTICK AIR, or *Wind*, §. 17. N^o 4.

§. 211. It may be of Use, if we can find out by what Ways or Means it comes to pass, that there happen in the Stomach or Bowels, Quantities of *elastick Air* sufficient to make painful Pressures against the Extremities of the Nerves; and it may conduce to the forming right Notions of this Matter, if the following Propositions be duly consider'd, *viz.*

Prop. 1. *That elastick Air, or Wind, may be transmitted from the Blood in the mesenterick Arteries, thro' the lymphatick Vessels,*

Vessels, and miliary Glands. into the Cavity of the Stomach, and Bowels.

The Truth of this Proposition will appear, if we consider, that as there are great Quantities of Air in solid Substances, whose Parts are very close and compact, as in *Marble, Alabaster, &c.* and which is easily separable from them, as I have found by Experiments made by the Juice of Limons, related to the ROYAL SOCIETY: So it seems reasonable to think, that in Fluid Substances, where the *Interstitia* are larger, there may be greater Quantities of Air; and consequently, that in the Blood and Lymph, and in every secreted Humour of the animal Body, there is elastick Air; and we may well imagine, that as the Humours secreted into the Stomach and Bowels may sometimes abound more with Air, or be more flatulent than at other Times, so in the Cavity of these *Viscera* (where there is more Space, and less Compression than in the minute Tubes from which they came) the Particles of Air may expand themselves, or exert their natural Elasticity: Besides, these secreted, digestive Humours may sometimes derive from the Blood such Qualities, that
in

in some Sorts of Aliment they may produce a Fermentation, or generate much Air; like Baum, or Yeast, which, tho' it will not ferment with Water, yet will do so with Wort of *Malt*, *Molosses*, &c.

§. 212. The Truth of the Proposition, §. 211, will, I think, be yet more evident from some of the Experiments made by Dr. *Hales*. He says, "tho' Air when blown
 " in at the *Aorta*, will not thence enter
 " the Cavity of the Guts, [that is, *per se*]
 " yet it will pass thither when it lays in a
 " latent State in the Interstices of a Liquor :
 " For having cut asunder in two Places a
 " Dog's Gut, at the Distance of two Feet
 " Length, I washed that Piece of Gut clean,
 " by passing of warm Water thro' it; then
 " tying up each End of it, new *frothy*
 " *Small Beer* which was Blood-warm,
 " flowed from a perpendicular Height of
 " $4\frac{1}{2}$ Feet thro' the descending *Aorta*, and
 " thence after some Time, in considerable
 " Quantities into the Stomach and Guts.
 " I found a Quantity of it equal to two cu-
 " bic Inches in the Piece of Gut, which
 " was washed and tied up at each End; it
 " was turbid and of a tawny Colour like
 " the

“ the Grounds of Beer. When I warmed
 “ this again over the Fire, fresh Froth arose
 “ on the Top of it : An Argument that the
 “ flatulent Air generated in the Stomach
 “ and Bowels, may not arise wholly from
 “ flatulent Food, or some Irregularity in the
 “ Digestion of it ; but that it may in Part
 “ also arise from too flatulently disposed
 “ Secretions that are made into the Sto-
 “ mach and Guts, from the Glands of those
 “ *Viscera*. If therefore there be at any
 “ Time Air in the Blood-vessels, it may, by
 “ being first resorbed into the Blood, be by
 “ that Means discharged from it in these
 “ plentiful Secretions.’ *Vid.* Dr. HALE’S
 “ *Hæmastatics*, p. 140, 141.

§. 214. These Experiments (§. 213.) prove,
 that Air in the Interstices of a Fluid may be
 transmitted from the sanguine Arteries into
 the Cavity of the Stomach and Bowels,
 which evinces the Truth of the Proposition,
 §. 212.

Corollary 1. From the Proposition, §. 211.
 it seems reasonable to infer, *that Air may*
pass into the Blood with the Chyle thro’ the
lacteal Vessels : 1. Because these Vessels are
 larger than many of those Secreting *Tubuli*,
 which

which transmit Humours from the Blood in the mesenterick Arteries into the Cavity of the Stomach, and Bowels. 2. Because of the several Reasons there are to think, there is more Air in the Interstices of the Contents of the Stomach, and in the Interstices of the Chyle, than in any other Liquid contain'd in the human Body.

Corollary 2. Therefore *a too flatulent Chyle may occasion a too flatulent Blood*; or too much Air to be in the Blood: Which may be one Cause of those, seemingly at least, *rheumatick Pains*, which happen to Persons upon their becoming warm in Bed; the Heat rarifying the Air in the Blood, may occasion the Particles of it to expand themselves, and to make painful Pressures against the Extremities of the Nerves in the Coats of those capillary sanguine Arteries, where the Pains are felt: And it is observable, that these Pains seldom happen, but in Bodies where the Blood is poor and watery, and the Cohesion of its Parts is weak.

Corollary 3. From the preceeding Corollaries it seems reasonable to apprehend, that the *moving Pains*, which some Persons feel one Minute in this Part of the Body, and in

a few Minutes after in another Part distant, may be occasion'd by *Air* or Wind in the Blood, carried thither in the Interstices of a flatulent Chyle.

§. 214. Prop. 2. *Great Quantities of elastick Air are generated in the Solution of animal and vegetable Substances* (a). The Truth of this Proposition is evident from many of the Experiments made by Dr. *Hales*, and related in his *Statical Essays*, Vol. I. and from this the *Doctor* very rationally infers another Proposition, viz.

§. 215. Prop. 3. *That a great deal (that is of elastick Air) does constantly arise from the dissolving of these [I suppose the Particle should have been the] Aliments in the Stomach and Bowels, which Dissolution it [that is, the Air] greatly promotes* (b). Some of the elastick Air, the *Doctor* well observes, may be absorbed again by the *Fumes* which arise from the Aliments.

§. 216. He says further, " Thus we see,
 " that the Variety of Mixtures in the Sto-
 " mach appear sometimes to *generate*, and
 " sometimes to *absorb* Air; that is, there
 K " is

(a) *Vid. Dr. Hales's Statical Essays, Vol. I. p. 309.*

(b) *Vid. ibid.*

“ is sometimes more generated than ab-
 “ sorbed, and sometimes an equal Quan-
 “ tity, and sometimes less, according to the
 “ Proportion the generating Power of the
 “ dissolving Aliments bears to the absorb-
 “ ing Power of the Fumes, which arise
 “ from them. In a truly kind Digestion,
 “ the generating Power exceeds the absorb-
 “ ing Power but a little : But whenever the
 “ Digestion deviates in some Degree from
 “ this natural State, to generate a greater
 “ Proportion of elastick Air, then we are
 “ troubled more or less with distending
 “ *Flatus* (a).

§. 217. Our IDEAS of *generating* and *re-*
sorbing, or *absorbing* Air, it may be, are
 not duly clear and adequate ; but I ap-
 prehend, that the Air said to be *generated*,
 was pre-existent at least in one of the Sub-
 stances mixed together ; and that this Gene-
 ration of Air is only a disuniting the Par-
 ticles of it from that Substance in which
 they before existed, by the Action of the
 other Substance ; and upon which Disunion
 it is, that those Particles of Air exert their
 Elasticity ; which was always in them, but
 restrained

(a) *Vid. Dr. Hales's Statical Essays, Vol. I. p. 310.*

restrained by their Cohesion with the Substance to which they adhered : And by the *resorbing*, or *absorbing* Air, I understand nothing else, than its Particles being so attracted by, and so closely united to the Parts of some other Substance, as not to be capable of exerting any Elasticity. However, it is certain, that as by the Mixture of some Substances, Quantities of Air may be brought into a State of *Activity*, so, by the Mixture of other Substances, Quantities of elastick Air may be reduced into an *inactive* State.

§. 218. These several Ways therefore *elastick Air* may happen to be in the *Stomach*, or *Bowels*, in too great Quantities, *viz.* 1. By too flatulent Secretions into them, derived from a too flatulent Blood, §. 211. 2. By the incidental Mixture of some different Substances in the Stomach, taken as Aliment, either liquid or solid, (§. 214, 215.) For which Reason, Persons will do well to avoid those *Eatables* and *Drinkables*, from which they have observed uneasy *Flatus's* to arise in their Stomach or Bowels.

§. 219. The *curative Indications* in flatulent Pains have been already noted, toge-

ther with their diagnostick Signs, §. 40. only here I would add another *diagnostick* Sign, by which these Distempers may be distinguished from those which result from other Causes, *viz.* that the Pain in these is commonly more *general*, and extensive, Air pressing *quaqua versum*.

§. 220. As for Medicines in these flatulent Distempers, (§. 210, 218.) those that will absorb Air, or bring the Particles of it from their elastick into a fixed, inactive State, are the proper Remedies.

§. 221. I may add, that I have observed in the Course of my Practice, Liquors made *hot* over the Fire, and drank as hot as the Patient could without supping and blowing, to afford a sensible Relief, which, when taken *cold*, availed nothing; and therefore for Persons under flatulent Disorders of the Stomach, or Bowels, I have order'd, and with manifest Advantage, their *Fuleps*, and other *liquid* Medicines, to be first made very warm, and then taken; or if *solid*, to be washed down with a Draught of some warm Liquor. Whether the Particles of the Medicines thus managed do more powerfully attract and absorb the Particles of the elastick

elastick Air, and bring them into a State of Inactivity, or not, I will not dispute ; but the Benefit of the Method, however produced, may be a Motive to use it.

§. 222. II. PAINS in the *Stomach*, and *Bowels*, are often produced by ACRID PARTICLES brought to *immediate Contact* with the Extremities of the Nerves affected, §. 19.

§. 223. There are several Things relating to this Matter, which deserve Consideration and Remembrance, *viz.*

I. The different WAYS by which acrid Particles may come to an immediate Contact with the Extremities of the Nerves situated in Coats of the Stomach and Bowels.

II. The different, general KINDS of *acrid Particles*, which may be productive of Pain in these *Viscera*.

§. 224. I. I desire it may be remember'd, that there are three Ways by which *acrid Particles* may come to an immediate Contact with the Extremities of the Nerves situated in the Coats of the *Stomach*, and *Bowels*, *viz.*

1. By being secreted from the Blood, and brought to the covering Membrane of the Superficies of the Part affected, and being

too bulky to pass thro' the Pores of it, are, by the Accession of other such-like Particles, thrust to an immediate Contact with the Extremities of the adjacent Nerves, in a Manner similar to the Production of small Pustles or Pimples on the external Superficies of the Body. *Vid.* §. 20, 21.

§. 225. Here let me observe, that Pains produced in this Manner, §. 224. are *not so easily*, or soon removed as those which are excited by acrid Humours lodging in the Cavity of the Stomach, or Bowels; because not so easily diluted, or dislodged, as they may be; and when Pain is not attended with any Symptom of Flatulency, or of an Inflammation of the Part affected, and yet is *permanent*, not readily yielding to alterative, or diluent Remedies, we have then Reason to apprehend, that the Cause productive of it, were acrid Particles brought to immediate Contact with the Extremities of the Nerves by the Way now assigned, §. 224.

§. 226. 2. By striking thro' the covering Membrane of that Part of the Superficies of the *Stomach*, or *Bowels*, where the Pain is perceived. This is the Case, both when Pain is produced by acrid Humours secreted from

from the Blood, and transmitted into the Cavity of those *Viscera*; and when it is produced by acrid Particles received into the Stomach with the *Ingesta*, the Things eaten, or drank.

§. 227. 3. By Means of some *Corrosion* of the Membrane, which covers the Extremities of the Nerves, §. 22, 23, 24.

§. 228. II. The different general KINDS of *acrid Particles*, which may be productive of Pains in the Stomach, and Bowels, are two, *viz.* 1. Those which are of an *alkaline*, and 2. those of an *acid* Nature, or Quality.

§. 229. 1. The first general Kind of *acrid Particles*, which may be brought to immediate Contact with the Extremities of the Nerves, are of an *alkaline* Nature.

§. 230. Here I shall lay down a Proposition, which well deserves not only Notice, but much Consideration by those who are studying Medicine, on the Account of its Truth, and of those many important Rules of Conduct in the Practice of Physick, which are deducible from it. It is this, *viz.*

Prop. *That all the acrid Particles secre-*

ted or excreted from the Blood in any Part of the Body, are of an alkaline Quality.

§. 231. That I may not be mistaken, I desire it may be observed, that by the Term *alkaline* in the Proposition, I mean that Quality in *acid Particles*, which is the Occasion of Fermentation, when mixed with liquid Substances of an acid Nature. There may be many different Sorts of alkaline Particles, as there are of acid Particles, both of the vegetable and chymical Kind; and there may be Particles of *Salt* in the Fluids, and Solids of human Bodies of a *neutral* Nature; that is, properly speaking, neither *alkaline*, nor *acid*: such Salts for ought I know, may be mixed with the alkaline Salts, which enter the Composition of the *Calculi* in the Kidneys and Bladders of Men; and also with the alkaline Salts extracted, by chymical *Analysis*, from the Blood, and from the solid Parts of human Bodies; and if there are such, then those animal Salts are Compounds of different Kinds of Salt; but then the Question is, whether the predominant Quality of these Compounds be of an *alkaline* Nature? I shall endeavour to shew that they are; and therefore proceed.

§. 232.

§. 232. The Truth of this Proposition, §. 230, will appear, if we consider a few Things, *viz.*

1. That no *acid* Particles have ever been found existent in the Blood, or have ever been separated from it by any chymical Process whatever: Consequently that no *acid* Particles ever exist in the Blood. And if this be Fact, we may justly infer, that the acrid Particles secreted, or excreted from the Blood are not of an *acid* Nature.

2. That the acrid Particles separated or extracted from the Blood by chymical *Analysis*, have been proved to be of an alkaline Nature. The saline, or acrid Particles, which, with Particles of Air, make up almost the whole Substance of the human *Calculus*, whether in the Kidneys, or Bladder, have been by Experiments proved to be *alkaline*; so the *gouty* Humours excreted to the Joints have been proved to have the same Quality. *Vid.* §. 234. *infra.*

§. 233. The GOUTY HUMOUR consists of *saline*, *acrid*, or corroding Particles of an *alkaline* Nature mixed with some hard, or earthy Particles excreted from the Blood with the Lymph.

§. 234.

§. 234. This is evident from the Experiments of *Sign. Michele Pinelli*. He says, "I have found by chymical Processes, that the solid Substance of human Bones, and the circumambient Parts, is composed of *Phlegm, Oil, an alkaline volatile Salt,* and a little *Earth*. The same Principles I have also constantly discover'd in the Blood, and all the other Fluids, which are secreted from it, as well as the other solid Parts, with this Difference only, that there is more *Phlegm*, and less *Oil* and *volatile Salt* in the Fluids, than may be extracted from the Solids. Carrying these Experiments still further, and endeavouring to extract *viâ humidâ*, as the Chymists call it, the Salts from the *Excrements* in the Stomach and Intestines, I have constantly found a *Salt* not unlike *Sea-Salt*, and appearing upon Examination to be a perfect *Acid*. And yet, with all possible Art and Carefulness whatever, nothing of this *acid Salt* could ever be obtain'd from all the other *solid* or *fluid* Parts of the Body. Hence it appears how much those must be mistaken, who have hitherto asserted, that the Cause of the

GOUT

“ GOUT is a *coagulating Acid* existing in
“ the Blood, since nothing of an Acid is
“ found in any Part of the Body, but the
“ Excrements. This put me upon think-
“ ing that the Cause of the Gout may be
“ owing to that other *saline Principle*,
“ which chymical Tryals shew us to exist
“ both in the solid and Fluid Parts: And I
“ have been confirmed herein by the fol-
“ lowing Experiments.

“ A very GOUTY PERSON being lately
“ dead at *Rome*, I procured as much as I
“ could of that *tophaceous gouty* Substance
“ commonly found about the Joints of Per-
“ sons afflicted with this Distemper; and
“ having got about three Ounces and a
“ half, I took six Glass Bottles, and put ten
“ Grains of it into each. The *first* of these
“ Bottles I filled with distilled Vinegar, the
“ *second* with Spirit of Vitriol, the *third*
“ with Spirit of Salt, the *fourth* with Spi-
“ rit of *Sal Ammoniac*, the *fifth* with Spi-
“ rit of Harts horn, and the *sixth* with
“ Spirit of Urine. After four and twenty
“ Hours, I found the aforesaid *tophaceous*
“ Matter totally dissolved in the three first
“ Bottles, which contain'd the *acid* Spirits;
“ but

“ but in the three others, which I filled with
“ *alkaline* Spirits, it remain'd entire and un-
“ touch'd, even for some Time after. From
“ hence I conclude this *tophaceous* Matter
“ to be of an *alkaline* Nature, for as much
“ as it is the Nature of acid Spirits to dis-
“ solve such Substances as are either alto-
“ gether alkaline, or composed in Part of
“ an *Alkali*. And this also I conceived to
“ be the Reason why the aforesaid *tophaceous*
“ Substance remain'd entire in the
“ Bottles filled with *alkaline* Spirits, both
“ being of the same Nature, and conse-
“ quently not to be dissolved by each other.

“ But for a further Satisfaction, I took
“ the remaining Part of this *tophaceous*
“ Matter, being about three Ounces, and
“ put it into a small Retort. Then having
“ fixed a Recipient to it, I distilled it, ac-
“ cording to the Rules of Art, by a gradual
“ Fire, and obtain'd a *Spirit*, with some
“ few Drops of *Oil*, about *ziii* of a *Caput*
“ *Mortuum* remaining in the Retort. This
“ Spirit I found to be a perfect *volatile Al-*
“ *cali*, altogether of the same Nature with
“ that which is extracted from *Blood*, from
“ *Urine*, and from *Bones*. Hence again it

“ is

“ is evident, that this tophaceous gouty Sub-
 “ stance is composed of the same Principles
 “ with the other fluid and solid Parts of the
 “ human Body ; or, that the *Cause of the*
 “ *Gout is*, nothing else but, *a volatile, al-*
 “ *caline, corrosive Salt* ; which, by corro-
 “ ding the sensible Membranes about the
 “ Joints, occasion those acute Pains which
 “ we call the GOUT.’ *Vid. in Philosoph.*
Transact. abridg’d, Vol. 7. (by Mr. Eames
 and Mr. Martin) Part 3. p. 634, 635. Dr.
Scheuchzer’s Translation of the *Italian* of
Sign. M. Pinelli.

§. 235. Hence (§. 234.) appears the Truth
 of what is asserted §. 230. *Prop.* and in §. 233.
 Now from the Consideration of the *alkaline*
 Quality of the *gouty* Humour, and indeed
 of all acrid Particles, any where excreted
 from the Blood, we may pretty easily un-
 derstand, that when the painful Distemper
 in the Stomach or Bowels, is produced by
 such acrid Particles, that we should endea-
 vour to dislodge and remove them from
 their Contact with the Extremities of the
 Nerves, and promote their Excretion by
 Perspiration, or to the Extremities of the
 Limbs ; as well as to alter their Figuration,
 and diminish their Bulk.

§. 236.

§. 236. There are some Questions, which deserve a little Notice, before I proceed to consider the other Sort of acrid Particles, *viz.* how it comes to pass, that since much of our Aliment abounds with *acid Particles*; and since in some Bodies the Quantity of Acid, in the Contents of the Stomach produces a Distemperature of it; that yet no Acid has ever been found in the Blood? Do not the acid Particles, which go into the Stomach with the *Ingesta*, mix with the Chyle, and with the Chyle pass into the Blood?

§. 237. These Questions at first View may seem very difficult to be solved. Certain it is that acid Particles by all People, are more or less almost daily taken into their Stomachs by eating or drinking, or both; and I think it is as certain that no *acid Salts* have been extracted from the Blood: However, I apprehend that this State of Things may be accounted for, if we consider a few Particulars, *viz.* 1. That by mixing a sufficient Quantity of alkaline Salts with vegetable Acids, the Figuration and Quality of the acid Particles may be alter'd. *E. g.* Mix a sufficient Quantity of *Salt of Woormwood* with *Juice of Limons*; and by that Mixture the Texture or Figuration of the acid Particles

ticles of that Juice will be alter'd; they will be deprived of their sensible, essential Properties; consequently they will be no longer acid, but Particles of another Denomination. We give different Names to Particles of different Figures and Properties on the Account of their known Difference; and to distinguish one Sort from another; and if acid Particles by any Means loose those Properties by which they were distinguish'd from Particles which are not acid, they justly loose their Character of *acid*. Another Name belongs to them, tho' we be not able to find out a Word proper to denote them.

2. Let it be observed, that all the Humours secreted from the Blood, and chymically analysed, have, by the Experiments been found to contain *alkaline Salts*: These exist in all Parts of the Body; in the Fluids as well as the Solids; (*vid. §. 234.*) consequently in the *digestive*; or *dissolvent* Humours secreted by the salivary Glands, and by the Glands, which empty their Fluid directly into the Cavity of the Stomach; and likewise both in the hepatick and pancreatick Secretions, tho' more especially in the former. Now if we contemplate these Things, we may pretty easily understand

stand that acid Particles taken into the Stomach may be alter'd, as to their Figures, and deprived of acid Properties, or of their Properties as *acid*, before they enter the Lacteals.

3. Let it be also consider'd, that there is no Reason to imagine, either that the acid Particles received into the Stomach, are annihilated, or that they all, unalter'd, pass thro' and out of the Body *per Anum*. 4. That therefore many of them at least do pass on with the Chyle thro' the Lacteals, and mix with the Blood: And since all the *Salts* and *Spirits* extracted from the Blood by a chymical *Analysis* have been always found to possess the known Properties of Salts and Spirits, acknowledged to be of an *alkaline* Nature, we have Reason to think that the Particles of *Acids* received into the Stomach loose their Figure and Properties, before they get into the Blood.

§. 238. These Conclusions, and this State of Things in human Bodies (§. 237.) have, in my Apprehension, manifest Appearances of Truth: But they lead into our Thoughts other Questions, *viz.* If *no Acids* enter into the Blood, how is it that they are so useful in curing many Fevers, and other Diseases, chronical

chronical, as well as acute ? How is it, that they allay Thirst, abate Difficulties of Breathing, increase the Quantity of Urine, or procure Sweat, or augment the Excretion by insensible Perspiration ; and produce many other beneficial Effects in those that rightly use them ?

§. 239. It may be reply'd to these Queries,
1. That altho' we should not be able to give any Account of the *Modus* of their Operation, yet the experienced good Effects of *vegetable* and *chymical* ACIDS, taken into the Stomach, are Evidences or Proofs of their Usefulness ; and inform us in what Cases, and to what Purposes they may be prudently advis'd, and what may be hoped from a due Use of them.

2. That *acid Particles* have a strong attractive Force, or are strongly attracted by the Particles of many other Substances on their Mixture with them, as appears by their receeding from each other, and uniting with, and adhering to other Bodies, and dividing their component Parts.

3. That this Power of Attraction, or of being attracted, peculiarly resident in the Particles of Acid, *may* in some Measure be imparted to the Particles of that Mass of Liquid,
L

quid, which passes from the Stomach thro' the *Duodenum*, and onwards thro' the lacteal Vessels into the Blood: But however this be, it is obvious from the Effects, that the Particles of Acid received into the Stomach, tho' they loose their Figure and Properties, yet produce *that* Quality in the Chyle, which on its Mixture with the Blood, abates the *alkaline Acrimony* of it, renders it thinner, and the Circulation of it more free and easy; consequently its Motion more regular. In this Manner may be produced those good Effects, which have been observed to follow a discreet Use of Acids.

2. The other general kind of *acid Particles*, which may be productive of Pains in the *Stomach*, are of an *acid* Nature. These come into the Stomach with the *Ingesta*; and may be reckoned the Ground of the following *Proposition*, viz.

Prop. *That an acid Acrimony frequently happens in the Contents of the Stomach, and Bowels.*

The Truth of this Proposition may be infer'd from the Experiments of *Sig. M. Pinnelli*, who in the Papers before-cited, says;
 “ Endeavouring to extract *viâ humidâ*, as the
 “ Chymists call it, the *Salt* from the Ex-
 “ crements

“crements of the *Stomach*, and *Intestines*,
“I have constantly found a *Salt*, not un-
“like Sea-Salt, and appearing upon Exa-
“mination to be a perfect *Acid*.^a” This
may also appear from considering how
much of our *Eatables*, and *Drinkables*, are
either *acid*, or *acescent*: For *Wheat* and
Barley, *Bread*, and MALT LIQUORS, are
acescent; and all WINES made of *Grapes*,
Sugar, or *Honey*, are *acid* or *acescent*; and
most Fruits, not only *Oranges* and *Lemons*,
but *Strawberries*, *Rasberries*, *Currants*,
Mulberries, *Cherries*, *Apples*, &c. are *acid*.
The Providence, indeed, of our bountiful
Creator has manifested not only his Wis-
dom, but his Kindness to his Creatures, in
giving such Qualities to their *Meats*, and
Drinks; for otherwise the *alkaline*, animal
Salts might quickly multiply, volatilize, pu-
trefy and dissolve both the *Fluids* and *So-
lids* of our Bodies; and soon put an End to
Life: But tho’ such Aliment is so needful
and beneficial, yet, if taken to Excess, may
produce a *morbid Acidity* in the Contents
of the Stomach and Bowels, and be the Oc-
casion of various Diseases.

The Truth of the Proposition may like-
wise be deduced from the Cures performed

(a) *Vid.* §. 234.

by the Means of *alkaline* Medicines in many Diseases of the Stomach and Bowels.

Corollary. We may conclude from this Proposition, (§. 239.) that it is a Point of no small Moment for a Physician in Distempers of the *Stomach* and *Bowels*, resulting from some *Acrimony*, so to examine his Patient, as to know whether the morbid Acrimony is of an *alkaline*, or *acid* Quality. In Infants and Children the peccant Acrimony for the most part is of an acid Nature; and it is often so in older Bodies, who make too great an Use of Acids in their Way of Living, or eat of Fruit to Excess. It will be necessary, therefore, to enquire very particularly concerning the Diet of every Patient.

§. 240. PAINS of the STOMACH, which are occasion'd by *acid Particles*, have some of them different Denominations. *E. g.*

§. 241. Some of them are called the HEART-BURN, which is a painful Sensation seated in the Mouth of the Stomach, and commonly attended with a very uneasy Sense of Heat, and most frequently results from an *acid Acrimony*, and is cured by alkaline Remedies. *E. g.* a Solution of the *Creta alba*, or *Ol. Tartari per Deliquum* in pure Water, and other such-like Medicines.

§. 142.

§. 242. If the Patient complaining of Pain in his Stomach or Bowels has a *Cancerous Ulcer* in any Part of his Body, there is a corrosive Acrimony in his Blood; and as the acrid Particles in such Bodies seem to be of a peculiar *Genus*, or to have a peculiar Degree of *Corrosiveness*, so the Pains thence arising, may by way of Distinction, be called *CANCEROUS PAINS*; if there be no Reason to apprehend that they are of the flatulent Kind, or arise from a Pressure against the Extremities of the Nerves affected by the obstructed Blood distending the capillary sanguine Arteries.

§. 243. If the Person complaining of a Pain in his Stomach, or Bowels, has in Time passed been afflicted with the *Gout*; and especially if he has lately felt the *gouty* Pains in his Foot, and if by any Occasion the gouty Humour returned, and his Foot became easy, and hereupon a Pain succeeded in his Stomach or Bowels: In this Case I would say he has the *Gout* in the Part pained, and treat him according to the *curative Indications* noted in §. 41.

§ 244. *PAINS* of the *BOWELS* are of like Kinds, result from the same Causes, and have the same curative Indications as the

painful Distempers of the *Stomach*, and are cured by the same Methods and Remedies; and are easily understood by what has been observed concerning them. Only I would mention a few Remarks concerning *Cholicks*.

§. 245. The CHOLICK, properly speaking is a painful Distemper of the Gut called the *Colon*. When the Pain of this Bowel is preceded and attended by a *Costiveness*, or want of going to Stool, it is called the *bilious Cholick*. I don't know how fitly it has this Appellation, because the Costiveness proceeds not only from a dry *Intemperies* of the Bowels, the humid Parts of their Contents being absorbed by the lacteal Vessels, but also from a Want of *Bile* to stimulate the Bowels to their natural Excretion of the *Fæces alvine*.

§. 246. The Pain in this Kind of Cholick seems to arise immediately from a Constriction of the sanguine Arteries, secreting Glands, and indeed of all the Vessels affected; and thence proceed painful Pressures against the Extremities of the Nerves. The *curative Indications* therefore in such Cases are, 1. to relax the constricted Vessels and Glands,

Glands. 2. By proper Cathartics, as a *vicious Bile*, to stimulate the Intestines to evacuate their *Fæces*.

§. 247. There is another Sort of *Cholick*, which has no Costiveness preceding or attending it; nay, sometimes it has a *Diarrhæa* for a concomitant Symptom. These Pains proceed either purely from acrimonious Particles, or purely from elastick Air, or Flatulencies in the Cavity of the Intestine; or partly from the one, and partly from the other; and which of them is the Cause of this or that Patient, may easily be induced, or known from what has been said, §. 31. *ad* §. 37. If acrid Particles in the Cavity of the Intestine were the Cause of the Pains, see the *curative Indications* in §. 41. If *elastick Air* was the Cause, see them in §. 40.

§. 248. If the cholic Pain is attended with a *Diarrhæa*, we may conclude there is an acrimonious and dissolvent Humour in the Blood, which we should consider and endeavour by suitable Medicines to alter it.

§. 248. There is another Sort of CHOLICK PAIN arising purely from *acrid Particles*, not secreted into the Cavity of the Intestinal

Tube, but brought from the Blood by lymphatick Arteries to an immediate Contact with the Extremities of the Nerves affected, under the common covering Membrane, that makes the inner Superficies of the Bowels; and this, if any, may be called a *nervous Cholick*; as all those Pains, happen where they will, may for the same Reason be called *nervous*, when the Extremities of the Nerves are affected in this Manner.

§. 250. For the Cure of such *nervous Pains*, *vid.* §. 41. the first Thing principally to be endeavour'd, is to dislodge or remove the *acrid* Particles from their Contact with the Extremities of the Nerves; and proper Remedies for this Purpose may be seen in the Histories of *cholicky* Cases. When the PAIN proceeds from *complex Causes*, the Medicines must be accordingly prescribed.

§. 251. The PAINS which afflict Children, and others that are troubled with WORMS, may be produced two Ways, *viz.* 1. by *Pressure*, when those Creatures press against the Membrane of the Part affected; and, 2. by *acrid Particles* in the *Fæces* discharged by them, some of which may strike thro' the covering Membrane, and prick the
Extremities

Extremities of the Nerves. In these Cases, *Medicines* which may destroy the Worms, and cleanse the Parts affected by them, must be advised.

§. 252. What now remains in relation to the painful Diseases treated of in this Chapter, is to exemplify some proper Methods of curing them, which will be done in the next following Histories.



C H A P. X.

*Containing Histories of various Sorts
of painful Distempers afflicting
either the Stomach or Bowels.*

§. 253. **I** Proceed now to relate some Histories of PAINFUL DISTEMPERS affecting the *Stomach* or *Bowels*, or both; and I shall do this in the same Order in which I consider'd the different Causes of Pain; and,

I. Of PAINS produced by *too great Pressures* against the Extremities of the Nerves affected, which, most frequently, are occasion'd, either

1. By *viscid Humours* in the Blood, obstructed in their Circulation in the capillary, sanguine Arteries of the Part affected. Or,
2. By *elastick Air*, or Wind in the Cavity of the Stomach, or Bowels.

I. Of PAINS from *too great Pressures* against the Extremities of the Nerves, occasion'd by *viscid Humours* in the Blood, obstructed in the capillary, sanguine Arteries of the Part affected; and the two following Histories

Histories are Instances of painful Diseases of this Kind.

HISTORY XX.

§. 254. The 25th of *April*, 1736, in the Afternoon, being sent for, I visited Mr. ROGER ANDERSON, aged about forty-five Years: He inform'd me, that in the Morning he was taken with the *Gripes*, and went to the Necessary House hoping for a Stool, and Ease by means of it, but could do nothing; that his Pains increased violently, to such a Degree as he had never felt before; that they extended all *round his Belly*, and the Small of his *Back*; that he was not able to stand upright; and that they were so extreme, that he could not forbear crying out. His Flesh was hot, his Pulse quick, and his Mouth clammy. I directed his Diet, and prescribed for him as follows.

℞ *Sperm. Ceti* ℥ss. *Ol. Amygdal. dulc.* ℥ss. *Ol. Junip. chym. gut.* xii. *optime misceantur*; dein adde *Syr. de Althæ.* *Syr. de Mecon. ana* ℥ss. & f. MISTURA pro Dosis iii. quarum capiat unam horis tertiis vel secundis durante Dolore.

℞ *Rad. Althæ.* ℥vi. *Flor. Chamæm.* Sem. *Anis.* Sem. *Cymin.*

Cymin. ana ℥i. coq. cum Aq. puræ q. s. ad lbii. Dein Liquori colato adde Aceti Vini alb. lbii. M. pro FOTU, quo Stuphis laneis Partes affectæ per semihoram calidè quantum ferre poterit, foveantur. Dein post horam Abdominis Regio cum Ol. Olivæ. tepidè & benè inungatur.

℞ Balsam. Capiv. ℥ii. Ol. Succini gut. x. Dissolv. cum Vitell. Ovi q. s. Dein adde Syr. Violar. Ol. Olivæ. ana ℥i. Aq. Pulegii ℥iv. M. f. ENEMA tepidè infundendum.

§. 255. *April 26.* in the Evening I visited him, when he told me, that he was much better; that on taking the *oily Mixture*, and using the *Fomentation*, he found so much Ease, that he omitted taking the Glyster; he likewise acquainted me, that he had repeated the oily Mixture, and taken a Dose of it every four or five Hours, and had slept pretty tollerably in the Night. He had some Remainders of his *Pains*, and his Fever had not left him. I therefore prescribed for him the following Remedies.

℞ Sperm. Ceti ℥ii. Sal. Prunell. Nucis Moscatæ, ana ℥i. M. f. PULVIS in Partes iv. æquales dividendus, quarum capiat unam sextâ quâque horâ cum Cochleari uno Misturæ sequentis mistam, superbibendo Haustum feri Lactis cum Vino mont. ppti.

℞ Aq. Pulegii, Syr. de Althæ. ana ℥i. & f. MISTURA pro Pulv.

℞ Balsam.

℞ Balsam. Capiv. ʒi. Ol. Carui gut. x. Dissolv. cum Vitelli Ovi ʒiij. Dein adde Syr. Balsamic. ʒi. Aq. Pulgii ʒii. Aq. Bryon. comp. ʒss. & f. MISTURA, cujus capiat semunciam Vesperi & Mane

§. 256. By these Medicines, (§. 255.) with the Blessing of God, his Pains entirely ceased, and his Fever left him, and he enjoyed his Health again.

HISTORY XXI.

§. 257. December 31, 1736, I visited Mr. ROGER ANDERSON, on the Occasion of his having the *Cholick* again, when he acquainted me, that the Day before, (*viz. Dec. 30.*) he was attacked with the *same Pains*, which tormented him so much the *April* before; and that he had made up, and used the Medicines I first prescribed for him in his former *Cholick*: That he had taken the *oily Mixture*, used the *Fomentation*, as then directed, which gave him much Ease; and that at Night he took the *Glyster* I prescribed, (§. 254.) which in his first Cholick he had omitted, “ which said Mr. A. (to use his own Expression) “ eased me, as tho’ I “ had taken a Charm, the Moment I took “ it.”

156 *Pain in the Stomach, &c.* HIST. XXI.

“ it”. At this Time I prescribed for him the following Bolus.

℞ *Sperm. Ceti*, *Cinnab. Nativ. ana gr. vii.* *Lapid. Contrayerv. ℥i.* *Camphor. gr. iii.* *Syr. de Mecon. q. s.*
M. f. Bolus sextâ quâque horâ sumendus, quamdiu opus fuerit.

§. 258. Some Time after he inform'd me, that he took six of the *Boluses*, and that his Pains entirely left him, but that the Parts affected with the Pain were *sore* for some Time after, as they were after his first Cholick. And *June 13. 1738*, he assured me that he had no Return of that Distemper since.

2. Of PAIN in the Stomach from too great Pressures against the Extremities of the Nerves by elastick Air.

HISTORY XXII.

§. 259. *February 3, 1737-8*, I advised for Miss A—H—, a young Lady of 18 Years of Age. She had a violent *Pain in her Stomach*, which seemed to her to be very much swell'd with Wind. She had drank some hot Water, but immediately vomited it

HIST. XXII. *Of Pain in the Stomach.* 157

it up without any Relief. I then order'd the following Draught, which presently abated her Pains : She evacuated *Wind* after taking it, and soon become easy. She then laid down on her Bed, slept a while, awaked very well, and continued free from her Pains.

R̄ *Cretæ alb. pulv. ℥ii. Aq. puræ ℥vi. Sacchar. alb. q. s. ad saporem gratum. M. f. HAUSTUS calidè bibendus.*

II. *Of PAINS from acrid Particles.*

1. *Of Pains from acrid Particles excreted from the Blood under the common covering Membrane, and there brought to immediate Contact with the Extremities of the Nerves affected. These may be call'd nervous Pains.*

HISTORY XXIII.

§. 260. *September 2. 1736, my Advice was desired for Mrs. A—— M——, aged about 31 Years: She complain'd of a great Pain in her Stomach, want of Appetite, Hoarseness, and Lowness of Spirits. I prescribed for her the following Pills, which, with the Blessing of God, removed her Complaints without any Repetition of them.*

R̄ *Sperm.*

℞ *Sperm. Ceti* ℥iiss. *Camphor. ℥ss.* *Mass. Pil. Gummos.*
ziii. *Ol. Junip. chym. gut. xxiv.* *Syr. Croci q. s.* *M.*
f. PILULÆ N° 48. inaurandæ, quarum capiat iv. bis
 in die.

HISTORY XXIV.

§. 261. *September 7. 1736, Mrs. J—P—,*
 a Widow, aged about 47 Years, asked my
 Advice: She complain'd of great *Pain in*
her Stomach, want of *Appetite,* and *Low-*
ness of Spirits. I prescribed the following
 Pills, which soon relieved her, and once
 repeated, with the divine Blessing, complea-
 ted her Recovery.

℞ *Rad. Gentian. zii.* *Sperm. Ceti zfs.* *Myrrh. zifs.* *Cam-*
phor. ℥ss. *Ol. Anis. chym. gut. xii.* *Syr. Croci q. s.*
M. f. PILULÆ N° 48. quarum cap. iv. bis in die, super-
 bibendo Haustum Decocti Lign. Sassafr. Raf.

HISTORY XXV.

§. 262. In the Year 1720, while I lived
 at *Yeovil* in *Somersetshire,* I received the
 following Letter from Mr. SAMUEL SACHE-
 VERAL, (Uncle of the late Dr. *Henry Sa-*
cheveral) then living at *Liverpool* in *Lan-*
cashire, desiring my Advice for his Wife. I
 have

have corrected the Spelling where it wanted, and put Points in their proper Places ; but the Copy is *verbatim* according to the Original, only the Words between the Crotchets are added to make the Sense more plain.

SIR, *Liverpool, June 21. 1720.*

“ I Make bold to trouble you with these
“ Lines, to let you know the long Indisposition my Wife has labour’d under.
“ Last *January* she was taken with a *violent Pain at her Heart*, which continued a
“ Month, or six Weeks ; when being advised by a Neighbour to take *lock Sena*, and
“ *Mithridate*, which after taking it two or three Times, she thought it gave her Ease ;
“ but still found herself grow weaker ; and in a short Time after was taken with a
“ *violent Pain in the back Part of her Head* ; and in the Morning found her
“ Face was drawn o’ one Side with *Convulsions*. The Part of her Head affected was
“ no broader than could be cover’d with the Top of one’s Thumb, which put her
“ into that tormenting Pain, which is not to be expressed ; and [we] could easily
“ discern when the Pain was most violent
“ upon

“ upon her, [because then] that Part [did]
“ move, and beat like a Pulse; and [she]
“ was often *twitch'd in her Body*, and
“ *Arms*.

“ We immediately sent for a Physician,
“ who at first gave us very little Hope of
“ her Life, and order'd her to be *blooded*
“ and *blister'd*; and told us, that what
“ gave her that Pain in her Head, was wholly
“ *Histericks* in the Height; and order'd her
“ Pills with *Affafetida* in them, and other
“ Things, which stopt the Convulsions; but
“ the Pain continued very terrible for near
“ a Week, when the Doctor order'd her two
“ Pills to take at Night, which we suppose
“ had *Opium* in them, for it caused her to
“ sleep all that Night, and Part of the next
“ Day, and the next Night, and gave her
“ so much Ease for four or five Days, that
“ we were in Hopes it [*i. e.* the Pain in her
“ head] had been removed.

“ But being surprized in her Sleep by a
“ Noise in the Street, the *Pain* and *Con-*
“ *vulsions* return'd, and [she] was taken
“ with the *Palsy in her under Lip*, which
“ caused her *Jaw to fall*; and [she] was
“ troubled with a *Pain in her Back*, occa-
“ sion'd

“ sion’d by the Gravel ; but by repeating the
“ same Pills, the Pain and Twitchings were
“ again removed ; but her Jaw continued
“ very ill for some Time ; but now both
“ that and her Face are now much better.

“ After the Pain of her Head was re-
“ moved, it [meaning, I suppose, the *mor-*
“ *bid Humour*] *fell down in the Passage of*
“ *her Stomach*, where it continues in [ra-
ther, *with*] “ that *tormenting Pain*, that she
“ very often fears the loosing of her Senses,
“ and [the Pain] was so intollerable, that
“ it has been a Terror both to see and hear
“ her ; [and] not being able to lye in her
“ Bed, but [forced to] get up all Hours of
“ the Night, and [*and* superfluous] in the
“ Violence of her Agony the Doctor has
“ been forced to give her *composing Drops*
“ to quiet it ; [I suppose, to give her Ease]
“ but after the Effect of it, [*i. e.* the Me-
dicine] “ was gone, it [*i. e.* the Pain] still
“ return’d upon her again ; and whatever
“ *she eat or drank still turn’d sower in*
“ *her Stomach*, and she has never the Be-
“ nefit of Nature, but when forced either
“ by *purging Physick* or *Glysters*.

“ Since she was taken, about a Month

M

“ since,

“ since, after the Doctor had given her a
“ great deal of Physick, and got her to go
“ into the Country, and stay some Time
“ for the Air; and finding all ineffectual,
“ he desired that another Doctor might be
“ taken in with him to advise with; for
“ he said he had never met with the like
“ Case, in all Respects, in his Life. Ac-
“ cordingly we sent for one that’s reputed
“ to be a Man of great Skill, and both of
“ them agree that it is *an Inflammation on*
“ *the Top of her Stomach*, and the *hyste-*
“ *ric Cholick*, and something of the *Rheu-*
“ *matism*: They have order’d her an *Elec-*
“ *tuary*, and *Juleps* (for raising her Spirits,
“ which are very low with [the] Extremity
“ of the Pain) with *bitter Wine*, for get-
“ ting her a Stomach; and likewise [a]
“ Glyster made of half a Pint of *Sack*, and
“ half a Pint of *Linseed Oil*, which she
“ takes once in three or four Days, and has
“ brought off great Quantities of *Phlegm*
“ like [the] *White of Eggs*; but *still the*
“ *Pain* continues upon her, and she’s grown
“ so thin, and so much alter’d, that was
“ you to see her, you would scarce know
“ her; and she is so much oppress’d with
“ the

“ the *Wind*, that she often says, it seems as
“ if she was girded round with something,
“ and ready to burst; which the Doctors
“ say is partly *histerical*, as well as *Wind*.

“ Having stated her Case to you, my
“ Desire is, that you would be so kind to
“ take it into your Consideration, and if you
“ have heard of the like Case, or can think
“ of any Thing that may be of Service to
“ her, that you would please to let us know
“ as soon as possible; for *her Condition*
“ *now is very deplorable*; and it will be a
“ very great Addition to the many Favours
“ we have already received from you. She
“ often talks of you, and wishes she was
“ near you, and thinks you would have
“ found out something, that with the Bless-
“ ing of God, would have given her Ease
“ before now.

Your most obliged humble Servant,

S. SACHEVERELL.

§. 263. Mr. *Sacheverell's* Family were
near Neighbours to me while I lived at
Shaftsbury in *Dorsetshire*, and then I was
their Physician on every Occasion; but some
Time after I removed to *Teovil* in *Sommer-*
M 2 *setshire*;

setshire; this Family removed, and settled at *Liverpool*.

§. 264. Mrs. *Sacheverell*, at the Time this Letter was wrote, was near 50 Years of Age, and had lost her *Menses* for above a Twelve-month. I must observe, that when the Letter was brought to my House, I was in *Devonshire*, and had not an Opportunity of returning an Answer to it till the 4th of *July* following, when I prescribed for her the following Remedies.

℞ *Rad. Rhabarb. opt. Glycyrrh. ana ziiij. Fol. Sene 3fs. Affesetid. gr. iii. Sal. Tartar. ʒi. clause coq. (in Ollâ figulinâ) in Aq. Pulegii q. s. ad 3xv. Dein Liquori colato adde Syr. Balsamic. 3i. M. f. APOZEMA purgans, de quo semel in septimanâ (& pro re natâ, i. e. si Alvus adstricta fuerit) cap. Coch. iv. vel v, (plus vel minus pro ratione Operationis) ut lenitè expurgetur Corpus. Diebus à Purgatione vacuis utatur seq.*

℞ *Sal. Martis Riverii ʒi. Flor. Sulphur. 3fs. Pulv. è Chel. C. simpl. Oc. Cancr. ppt. Sal. Prunell. ana 3i. Succini alb. ppt. Castor. Russiæ ana 3fs. Croci Anglic. gr. xv. Cinnab. Nativ. ʒiv. Conseru. Fol. Malvæ 3fs. Syr. Flor. Paralys. q. s. M. f. ELECTUARIUM, de quo cap. 3ii. Vesperi & Mane, superbibendo Coch. v. Vini medicati seq.*

℞ *Rad. Gentian. incis. 3vi. Rad. Calami Aromatic. Rad. Enulæ camp. Glycyrrh. Rad. Pæon. mar. ana 3ii. Summit. Absinth. rom. Summit. Centaur. min. ana m. ss. Flor. Chamæm. P. ii. Sem. Coriandr. 3i. Vini alb. lbii. M. digerantur clause & frigide per Dies ii. & dein filtretur. & f. VINUM medicatum.*

℞ *Camphor.*

℞ *Campbor.* Div. *Castor.* *Myrrh.* *Croci.* ana ℥i. *Ol. Succini.* *Ol. Menth.* ana gut. iii. *M. f.* Pulvis, defn cum Panno Linteo f. *CULCITRA* pro Cordis Scrobiculo.

§. 265. In the Beginning of the *August* following I received a second Letter from Mr. *Sacheverell*, and here subjoyn a Copy of it, so far as it relates to the foremention'd Illness of his Wife, in the same Manner I copied the former.

S I R, *Leverpool, July 29. 1720.*

“ I Received your kind Letter, and Pre-
 “ scripts, for which I return you my
 “ hearty Thanks : We shew'd it immedi-
 “ ately to the *Doctors*, who both acknow-
 “ ledged they were excellent Things, and
 “ would leave her to her own Liberty to
 “ take them, or not. I then sent for the
 “ Apothecary to give him Orders for the
 “ putting them up ; who, when he had
 “ seen the Prescript, said they were most
 “ excellent Things, and if any Thing would
 “ touch the Cause, they would, which no-
 “ thing she had taken as yet had done, and
 “ that you had hit the Cause as right as if
 “ you had been by.

“ She took six Spoonfuls of the *Purge*,

M 3

“ which

“ which brought away Abundance from
“ her, which we thought had lain in her
“ Body a great while : Being so very weak,
“ [she] was fainty in the Working of it, for
“ it wrought six or seven Times; and for
“ a Week after, she had every Day a Stool,
“ which was very black and offensive, and
“ she found it removed the Cause in some
“ Measure, *that she can [now] draw up*
“ *her Stomach, and the Pains are not so*
“ *violent, nor the Risings like Wind so*
“ *great as they were ; but still there con-*
“ *tinues a Heat in her Stomach, a Sore-*
“ *ness, and some Pains.*

“ She entred on the *Electuary*, and *bit-*
“ *ter Wine* the Day after she took her Purge,
“ and continues [taking] them still.

“ When the Pain begins to be worse, she
“ takes of the Purge, which now gives her
“ but two or three Stools, which she finds
“ *much Ease* in ; and [she] *looks much bet-*
“ *ter than before she took your Things, and*
“ *has more Stomach*, and can walk better :
“ So that we have great Hopes that God
“ will be pleased to make you the Instru-
“ ment of restoring Health to her, and
“ Strength ; and desire you would please
“ to

“ to give her your further Advice, what you
 “ think may be proper for *healing* and
 “ *cooling* her Stomach, and keeping her
 “ Body in Order, or whether she must keep
 “ to the same.

“ The Change wrought in her is to the
 “ Admiration of the whole Town;
 “ for no one that ever had seen her, expect-
 “ ed her Life de-
 “ firing your speedy Answer, concludes
 “ from

Your obliged humble Servant,

S. SACHEVERELL.

§. 266. The 8th of *August* I return'd an Answer to this Letter, and order'd her to continue the Use of the Medicines prescribed for her the 4th of *July*, so long as she wanted them, and they did her Service; and prescribed the following Julep.

℞ Sal. Prunell ʒi. Sal. Tartari ʒi. Pulv. è Chel. Cancr. simpl. Oc. Cancr. ppt. Cretæ albæ, ana ʒss. Aq. Cinnam. bordeat. ʒv. Aq. Cinnam. fort. ʒss. Syr. Balsamic. ʒiiss. M. f. JULAPIUM, de quo cap. Cochl. ii. vel iii. quando Calor vel Dolor Ventriculi postulaverit, Phialâ prius agitata.

§. 267. About the Middle of *September* I received a third Letter from him, in which

he writes thus : “ My Wife has follow’d
 “ your Directions, and by the Blessing of
 “ God, continues much better : When she
 “ finds any of [her Disorders] return, *she*
 “ *applies* herself to your Prescription, [from]
 “ which she always finds Relief
 “ Her Recovery is so great a Wonder, that
 “ many that are ill here wish that you could
 “ come *to them*, and think you could save
 “ their Lives.”

§. 268. This Patient had always a *Scor-*
butick Habit of Body, and frequently afflict-
 ed with *nervous* Disorders; and had my Ad-
 vice again in *August* 1723, against other
 Ailments, and again in *April* 1726.

HISTORY XXVI.

§. 269. *October* 5. 1736. being sent for,
 I visited Mrs. CARUTHUS, (Wife of Mr.
George Caruthus, a Meal-man at *Uxbridge*)
 and had the following Account of her Case,
viz. That about a Year and a half before,
 they had the *Itch* in the Family, and Mrs.
Caruthus was advised to make a strong *mer-*
curial Water to cure it; which she did:
 And

And being afraid of catching that Distemper, she not only washed herself with that *Water*, but one Night drank a large Draught of it: The next Morning her *Face* and *Body* were very much swell'd, four of her Teeth dropt out; she foam'd at the Mouth, had great *Pains in her Bowels*, which were follow'd first by a *Spitting*, and then by a *Vomiting* and *Looseness*; which last Evacuation very much relieved her for a while: But from that Time she was afflicted almost continually with great *Pains in her Bowels*, which, in the Beginning of the last preceeding *August*, became so violent, that she used to roll on the Ground in extreme Agonies, trying all Manner of Ways to obtain Ease, but to no Purpose.

§. 270. Her Friends and Neighbours expected her Death; a Messenger was sent in the Night to *London*, for her Sister to make haste to *Uxbridge*, if she would see her before she died. Her Sister went immediately, and carried some *cholick* Medicines, which she took, and did her some little Service. She had try'd the most noted Practitioners of Physick about that Country, but to very little Purpose: Her Sister therefore
persuaded

persuaded her to come to *London* for Advice; which she did on the 4th of this *October*. The next Day, when I visited her, the Particulars complain'd of were the aforementioned racking *Pains in her Bowels*, more or less always upon her, *want of Appetite*, and *ULCERS* about her *Face, Neck, and Breast*, each about the Bigness of a Silver Penny; but she had a pretty large one on her right *Leg*. I prescribed for her as follows.

℞ *Sperm. Ceti*, *Lapid. Contrayerv. ana* ℥ss. *Camphor.* gr. ii. *Elect. Mithridatii* ℥i. *Ol. Junip. chym. gut.* ii. *Confect. Alkerm. sine Mosch. q. s.* *M. f.* *BOLUS* inaurandus, & sextâ quâque horâ sumendus, tepidè superbibendo *Hauftum Infusi Flor. Chamæmel.*

℞ *Ol. Olivæ.* ℥ii. *Ol. Anif. gut.* ii. *M. f.* *LINIMENTUM*, quo *Partes cum Doloribus affectæ* bis in die per horæ quadrantem tepidè inungantur.

℞ *Mucilag. tenuis Rad. Althæ.* ℥ii. *Tinc. Myrrhæ, gut.* 80. *M. f.* *FORTUS*, quo *Ulcerâ bis tervè in die tepide foveantur.*

§. 271. *October* 7. I visited her again, and found her much better: Her Brother-in-Law, who practises Physick, said she was as it were, miraculously relieved by the *Bolus*, the Use of which had been continued from

from the Time I order'd it. She complain'd of a *Dizziness in her Head*, which she apprehended was occasion'd by the *Bolus*. I therefore prescribed for her as follows.

Pergat in usu Remediorum die Oct. 5to. præscriptorum.

℞ *Tinct. Myrrhæ* ℥ii. *Aceti opt.* ℥vi. *M. pro FORTU*, quonucha, tempora, & nares subindè, ut opus fuerit, tepidè foveantur.

Si postulaverit *Occasio Bolus* antea præscriptus omittatur, & *Bolus* sequens exhibeatur.

℞ *Sperm. Ceti*, *Lapid. Contrayerv.* *Myrrh. ana* gr. vii. *El. Mithridatii* ℥i. *Ol. Junip. chym. gut.* ii. *Confect. Alkerm. sine Mosch. q. s.* *M. f. BOLUS* inaurandus, & horis sextis vel octavis sumendus, tepidè superbibendo *Hauftum Infusi Flor. Chamem.*

§. 272. *October 10.* I visited her again, when I was inform'd, that the last *Bolus* agreed extremely well with her; that she was free from the *Dizziness* of her Head, and grew almost perfectly easy in her Bowels; eat her *Victuals* with an Appetite, which she had not done for many Months before; but that she had no Stool since she came to *London*, and began to grow uneasy for want of that Evacuation: I therefore prescribed the following Medicine.

℞ *Glycyrrhiz.* *Fol. Senæ, ana* ℥ii. *Sem. Anis.* *Sem. Carui,*

ruī, ana ʒss. coq. cum Aq. puræ q. s. ad ʒiv. Sub Decoctionis finem addendo Sal. Prunell. ʒi. Mannæ opt. ʒi. Dein coletur APOZEMA purgans, cujus capiat Coch. iv. & repetatur Dosis ut opus fuerit contra Alvi adstrictionem.

§. 273. Mr. *Anderson* her Brother-in-Law acquainted me, that the next Morning he gave her four Spoonfuls of the *Apozeme*, which she thought much grip'd her; that an Hour after he gave her the like Quantity, which increased her Pain, but produced no Stool; and that an Hour after he gave her the Remainder of the *Apozeme*, which then soon began to work, and purged her ten Times that Day; which, she said, made her perfectly easy, and as well as ever she was in her Life.

§. 274. The next Day she began again to take the last prescribed *Bolus*, and took one every eight Hours, which confirmed her Ease and Recovery. But to prevent any Relapse as she was returning into the Country, Oct. 17. I prescribed as follows, and took my Leave of her.

ʒ Ol. Junip. chym. gut. xx. Sacchar. alb. ʒii. Sal. Nitri ʒiv. Optimè misceantur, dein adde Aq. Pulegii ʒiv. Aq. Bryon. comp. Syr. de Althæa, ana ʒii. & f. MISTURA, cujus cap. Coch. i. semel vel bis in die, tepidè superbibendo Haustum Liquoris cujuslibet.

ʒ. Elect.

HIST. XXVI. Of Pain in the Bowels. 173

R. *Elect. Caryocostin.* ʒi. *Elect. Lenitivo.* ʒiij. M. f. ELEC-
TUARIUM *purgans*, de quo cap. ʒii. vel ʒiij. ut opus fu-
erit contra Alvi adstrictionem.

§. 275. The *Ulcers* mention'd (§. 270.) were soon healed with the *Fotus* I order'd for them, except that on her right Leg, out of which came a considerable Core; but that was pretty well digested before she left *London*; and her Brother-in-Law has very lately told me, that she has enjoy'd her Health very well ever since.

HISTORY XXVII.

§. 276. *October* 15. 1727, about Eleven o'Clock at Night, being sent for, I visited Mr. NICHOLAS CARRINGTON, aged 23 Years, a Journeyman to Mr. *Harlee*, a Plumber at *Witham* in *Essex*. He told me that he had been much afflicted with the *Rheumatism*, and had likewise had several Fits of the Gout, and now had been, for seven Days together, with very small Remissions, under Extremity of *Pains* in his *Stomach* and *Bowels*. His PULSE I found quicker and stronger than in Time of Health; his

his TONGUE was *white*, and somewhat *foul* in the Middle, and towards its Root. I prescribed for him as follows.

℞ *Antimon. diaphoret. Pulv. e Chel. Cancr. simpl. Sperm. Ceti, ana* ℥ii. *Nuc. Moscat. Flor. Sulphur. ana* ℥i. *M. f. PULVIS* in Partes iv. dividendus, quarum capiat unam omni trihorio cum Cochleari uno Mixture sequentis mistam.

℞ *Syrup. de Althæ. ℥i. Syr. de Balsamic. Sp. Lavendul. comp. ana* ℥iij. *Aq. Mirabilis* ℥ii. & f. MISTURA pro Pulveribus.

℞ *Ol. Amygdal. dulc* ℥ss. *Ol. Junip. chym. gut. x. Syr. de Mecon. ℥i. Syr. de Althæ. ℥ss. & f. MISTURA anodina*, cujus capiat semunciam sextâ quâque horâ durante Dolore, Phialâ prius agitâtâ.

§. 277. *October* 16. about Eleven o'Clock in the Forenoon, I visited him again, and found that his Pains were somewhat abated, but still remaining strong. He complain'd of Disorders in his Head, which he could not well describe, that afflicted him at Times. His Pulse and Tongue were much as the Night before. He had taken all the Powders, and three Parts in four of the *anodine* Mixture. I order'd that he should not take the Remainder of it, and prescribed for him as follows.

℞ *Masse*

℞ *Massæ Emplastr. Epispastic. q. s. super alutam extendatur,*
 & f. EMPLASTRA duo Tibiis applicanda.

℞ *Rad. Serpentar. virg. Sem. Anisi, Antimon. diapho-*
ret. ana ℥ss. Nuc. Moscat. gr. v. Myrrh. gr. iv. Cam-
phor. gr. i. Syr. Balsamic. q. s. M. f. Bolus immedi-
ate sumendus, & horâ octavâ Vespertinâ repetendus.

§. 278. In the Evening I visited him again, and found his Pains more abated. I only order'd his taking the second *Bolus*.

§. 279. *Tuesday, Oct. 17,* in the Forenoon, I visited him again, and found his Pains much more abated, and that the Blistering Plaisters had wrought well. I prescribed as follows.

Repetatur Bolus heri præscriptus, & immediatè sumatur,
& hora Vespertinâ octavâ iterum repetatur.

℞ *Aq. Lactis alex. ℥iiss. Aq. Pæon. comp. Sp. Lavendul.*
comp. ana ℥ss. Tinct. Castor. carminativ. ℥ii. Tinct.
Myrrh. Syr. Pæon. ana ℥i. & f. MISTURA cardiaca,
de qua capiat Cochl. ℥i. subinde, ut opus fuerit.

§. 280. *Wednesday, Oct. 18.* I visited him again, and found him free from his Pains, and those Disorders of his Head, which he had complain'd of. His Pulse was regular, and his Tongue moister. However, to prevent the Return of his Pains, I prescribed the following *Electuary*.

℞ *Rad.*

℞ Rad. Serpentar. virg. Rad. Zedoar. Sem. Anis. Nuc.
Mosc. ana ʒss. Myrrhæ ʒi. Croci, Camphor. ana
ʒss. Conserv. Absinth. Roman. ʒss. Syr. Zinzib. Con-
dit. q. s. M. f. ELECTUARIUM, de quo capiat quan-
tatem Nuc. Moscat. tēr in die.

§. 281. Thus, with the Blessing of God,
he soon recover'd from a most deplorable
and threaten'g Fit of the GOUT in his *Sto-
mach* and *Bowels*.

HISTORY XXVIII.

§. 282. *February* 17. 1733-4, being sent
for, I visit'd Mr. BEACH, a Man about 50
Years of Age, and accustomed to drink in-
temperately strong spirituous Liquors. He
had a *leuco-phlegmatick* Habit of Body, and
his Legs were, and had been for some Time,
greatly swell'd, so much that he was un-
capable of walking. He was subject to the
Gout, and at this Time had it violently in
his Stomach, which was the Occasion of
his sending for me. He told me that it
had been in his Stomach, as I remember,
near a Fortnight. He had a total Loss of
Appetite, and not only an Aversion to solid
Food, but could not bear any *Broths*, *Pa-
nada*, or *Gruels*, in his Stomach, and that
he

he vomited almost every Thing he drank. I therefore order'd that he should take nothing for Food but warm Milk ; and that if his Spirits were low at any Time, instead of Wine, strong Beer, or Drams, he should take a Spoonful or two of Brandy in half a Pint of warm Milk, and take nothing else besides the Medicines I should order from the Apothecary's ; and then I prescribed for him the following Remedies.

℞ Rad. Serpentar. virg. Rad. Curcumæ, Flor. Sulphur. Camphoræ, ana gr. v. Syr. Balsamic. q. s. M. f. BOLUS inaurandus, & sextâ quâque horâ ad iv. vices sumendus.

℞ Aq. Pulegii ℥iij. Sp. Lavendul. comp. Syr. Balsamic. ana ℥ss. Laudan. liq. Syd. gut. xx. M. f. JULAPIUM cardiacum, de quo cap. Coch. i. pro re nata.

§. 283. *February* 18. I visited him again, and found him much easier ; and that Medicines sat well on his Stomach, and that the Milk, and Milk with Brandy did agree well, and was an agreeable Sort of Aliment to him. Therefore I order'd four *Boluses* more, and another Bottle of the *Julep* ; and that he should continue the same *Milk Diet*, and directed, that as he was much better, he should take the

N

Bolus

Bolus but at eight Hours, or more Distance.

§. 284. *February 21.* I visited him again, found him easy in his Stomach, and recovering his Health; but judged it proper that he should continue the same Diet, and order'd the Medicines to be repeated; and that he should take four more Boluses, and a third Bottle of Julep.

§. 285. *February 26.* I visited him again, and found that he had no Return of the *Gout*, but continued easy in his Stomach, and growing better in Health, and beginning to have a little Appetite; however, I thought it needful for him to continue the Use of Medicines a little longer, and therefore prescribed for him the following Pills to strengthen the Solids, and prevent a Relapse.

R. *Rad. Serpentar. virg. Rad. Gentian. Sem. Anis. ana*
 ℥ii. *Camphoræ* ʒss. *Bals. Tolu.* ʒiss. *Ol. Succini gut.*
 x. *Syr. Balsamic.* q. s. *M. f. PILULÆ* N^o 48. inau-
 randæ, quarum capiat iv. bis in die.

§. 286. These Medicines, §. 282, 285, were all that he took on the Account of the *Gout*, by which, with the divine Blessing, he happily recover'd from a dangerous Fit of it in his Stomach.

2. Of PAINS from acrid Particles excreted from the Blood into the Cavity of the Stomach, or Bowels, some of which, by striking through the covering Membrane, are supposed to pass to an immediate Contact with the Extremities of the Nerves affected.

HISTORY XXIX.

§. 287. Mrs. MACKWAN, aged about 49 Years, had for a great while been afflicted with a *Cancerous Tumour* in her right *Breast*, which in *December 1736*, grew exceeding painful, was attended with a *symptomatic Fever*, and broke. The *Ulcer* was dressed by that judicious Surgeon Mr. *Fern*, and I prescribed Medicines for the Cure of her Fever, which happily succeeded, and I took my Leave of her.

§. 288. *April 17. 1737*, I was sent for again : She then complain'd, that for several Days she had been afflicted with great *Pain in her Stomach*, had a great *Lowness of Spirits*, and was *feverish* at Times, and was subject to be *costive*. I apprehended that her Pain very much proceeded from a

cancerous Acrimony in her Blood, and therefore prescribed the following Remedies, in the Use of which, with the Blessing of God, she soon became free from her Pains, &c.

℞ *Antimon. diaphor. Pulv. è Chel. Cancr. simpl. Sal. Prunell. ana ʒi. Mucilag. tenuis Rad. Althæ. ʒiv. Aq. Pulegii ʒiij. Syr. Balsamic. ʒi. & f. MISTURA, cujus cap. Coch. ii. vel iii. omni Mane, tepidè superbibendo Haustum Aquæ Hordei.*

℞ *Flor. Sulphur. Div. Sal. Prunell. ʒii. Elect. Lenitiv. ʒi. Syr. de Althæ. Syr. de Spinâ Cervin. ana ʒiij. & f. MISTURA, de quâ cap. ʒiij. omni nocte, tepidè superbibendo Haustum Aquæ Hordei.*

℞ *Sperm. Ceti ʒii. Ol. Anis. chym. gut. viii. Dissolv. cum Vitell. Ovi q. s. Dein adde Aq. Pulegii ʒiij. Syr. de Althæ. ʒi. & f. MISTURA, cujus cap. Coch. i. ut opus fuerit, contra Ventriculi Dolores.*

HISTORY XXX.

§. 289. *February 4. 1736-7.* being sent for, I visited one Mr. JOSIAH EDWARDS, aged about 29 Years; he complain'd of violent *Pains in his Bowels* in the lower Part of his Belly, and of *bloody Stools*; that he thought he had forty Stools in the Space of the last thirty Hours, and had voided a great deal of Blood, and said that his *Pains* were
very

HIST. XXX. *Pain in the Stomach, &c.* 181

very *gripping*. I prescribed the following Remedy, which, thro' the divine Blessing, cured his Distemper without any Repetition of it.

℞ *Rad. serpentar. virg.* ℥i. *Boli Armen.* ℥ii. *Elect. Mithridatii* ℥iv. *Syr. Balsamic.* q. s. *M. f. ELECTUARIUM* pro iv. *Dosis*, quarum capiat unam horis sextis, tepidè superbibendo *Hauftum Aquæ Hordei*.

III. Of PAINS from complex Causes, viz. from acrid Particles excreted from the Blood, partly under the covering Membrane of the Nerves, and partly into the Cavity of the Stomach and Bowels.

HISTORY XXXI.

§. 290. *May 4. 1725.* being sent for, I visited Mrs. S— V—, at *Ulting in Essex*, aged about 28 Years. She had been for some Weeks afflicted with great Pains in her *Stomach and Bowels*, which continuing and increasing, brought on a *symptomatic Fever*, and *Vomitings*. I was told that she had vomited almost every Thing she had taken the last ten Days. She also had the *Jaundice*; and complain'd of a continual *Itching* in her Skin. Draughts, with two

N 3

Ounces

Ounces of *Ol. Lini* in each ; and other Medicines, had been given her, which she soon vomited up, and found no Relief by them, nor by any Thing else she had taken. I prescribed for her as follows.

℞ *Ol. Amygdal. dulc.* ℥ii. *Ol. Junip. chym. gut.* vii. *Syr. de Mecon.* ℥ss. *Syr. de Althæ.* ℥ii. & *f. f. a.* MISTURA *anodina* pro ii. Dosis, quarum capiat unam immediate, & alteram Vesperi vel crastino Mane.

℞ *Antimon. diaphor.* ℥ss. *Aq. Cinnam. bord.* ℥iv. ℞. *Sp. Lavendul. comp.* *Aq. Pæon. comp. ana* ℥i. *Aq. Menth.* ℥ii. *Syr. Balsamic.* ℥i. *M. f.* JULAPIUM, de quo tepidè cap. Coch. i. singulis horis, Phialâ prius agitâtâ.

℞ *Ol. Mac. per express.* *Ol. Flor. Chamæm. ana* ℥ii. *Ol. Absinth.* *Ol. Menth. chym. ana gut.* vii. *M. f.* LINIMENTUM, quo Ventriculi Regio tepidè & benè inungatur.

§. 291. May 5. I visited her again, and found that the Medicines agreed well with her ; that her Vomitings were ceased, and her Pains much abated, and that she had slept quietly in the Night between Whiles. Her Pulse was not altogether so quick as the Day before ; but the yellow Colour of her Eyes and Skin was the same. I therefore order'd the *anodine* Mixture and the *Lini-ment* to be repeated, and used as the former, and prescribed the following Julep,

℞ *Antimon.*

℞ *Antimon. diaphor.* ʒss. *Sal. Tartar.* gr. vii. *Aq. Cinnam. bord.* ʒiv. ℥. *Sp. Lavendul. c.* *Aq. Pæon. comp.* ana ʒi. *Aq. Mentb.* ʒii. *Syr. Balsamic.* ʒi. *M. f. JOLAPIUM*, de quo tepidè cap. *Cochl.* i. singulis horis, *Phialâ* prius agitâtâ.

§. 292. *May 6.* I visited her again, and found her easy, and still free from her Vomitings, as well as from her Pains; but the *icteric Symptoms, Lowness of Spirits, and want of Appetite* remaining, I prescribed for her the following Medicines.

Repetatur Mistura anodina die Maii 4to præscripta, cujus capiat Dofin, si opus fuerit.

℞ *Chalyb. cum Sulphur. ppt.* ʒii. *Corall. rub. pp.* *Rad. Gentian. ana* ʒii. *Sal. Absinth.* gr. xv. *Croci* gr. vii. *Gum. Ammoniac.* ʒiss. *Ol. Junip. chym. gut.* vii. *Balsam. Capiv. q. s.* *M. Mass. Pilularum, & e singulis Massæ Drachmis formentur PILULÆ N° xii.* quarum capiat iii. tẽr in die, superbibendo *Cochl.* iii. *Apozematis* sequentis.

℞ *Rad. Gentian.* ʒiiij. *Rad. Zadoar.* ʒi. *Flor. Chamæm. m. i.* *Sem. Cardui ben.* ʒi. *Garyophyll.* *Nuc. Moscat. ana* ʒss. *Coq. cum. Aq. puræ q. s.* *Dein Liqueoris colati* ʒxii. *adde Vini alb. mont.* ʒiv. & f. *APOZEMA.*

§. 293. These Medicines, §. 292. sat well on her Stomach, and she daily grew better.

§. 294. The PILLS were once, and the *Apozeme* was twice repeated, with the Addition of *Sem. Cardui* ʒi. *Flavid. Cortic.*

Aurant. acid. ʒii. and the *anodyne Mixture* was once more repeated.

§. 295. The 10th of *May* she was very importunate for Leave to drink Beer, which I consented to, on Condition of putting some Drops into it, and therefore prescribed as follows.

Rx *Sp. Nitri dulc.* ʒifs. *Sp. Lavendul.* ʒfs. ℞f. *MISTURA*,
cujus cap. gut. xv. in omni Hauſt. *Cereviſiæ*.

§. 296. In the Use of theſe Remedies, with the Bleſſing of God, ſhe recover'd a good State of Health.



CHAP. XI.

CH A P. XI.

Containing an Account of Pains in the Kidneys and Ureters, as to their Causes and curative Indications, with a suitable History.

§. 297. 4. **T**HE NEPHRITICK PAINS require our serious Consideration, as they commonly are most exquisite and terrible. These, strictly speaking, are Pains of one, or other, or both the *Kidneys*, the Word *Nephritis* being derived from νεφρός, which signifies a Kidney; but Custom has given to it a more extensive Signification, and made it comprehensive of those Pains, which happen to any of the Parts immediately subservient to the Excretion of the Urine into the Bladder, whether the Center or immediate Seat of them be the *Kidneys* or *Ureters*. They are called *nephritic Pains*, altho' in the *Ureters*, because most frequently they owe their Origin to some Disorder in the *Kidneys*.

§. 298. PAINS of this Denomination,

§. 297.

§. 297. may arise from different Causes, the most frequent of which are,

1. *Too great Pressures* against the Extremities of the Nerves affected, occasion'd by the Motion of the Blood being obstructed in some of the capillary sanguine Arteries.
2. A *Constriction* of the Vessels affected.
3. A *Calculus* in the Part where the Pain centers.

§. 299. 1. When the *nephritick Pain* proceeds from the first of these Causes, (§. 298. N^o 1.) it may be known to do so by the *diagnostick* Signs mention'd, §. 36. only I may add, that in the Fever, which is concomitant with these Pains, the Pulse is commonly harder than in the Fever which follows the Pain, when produced by a *Calculus*. The *curative Indications* in Diseases of this Sort, may be understood from what is said in §. 39.

§. 300. 2. When the PAINS, §. 297. are produced by the second Cause, (§. 298. N^o 2.) it may be concluded to do so from the Absence of those Symptoms, which attend them, when they result from the Cause first mention'd, (§. 298, 299.) and from the Want of those Signs, which discover a *Calculus*

culus to be in the Part affected, which will be taken Notice of, §. 308, 309, 310. *infra*.

§. 301. We may know in what Part the *Constriction* of the Vessels happens, by knowing where the Seat of the Pain is; and we may with Probability conclude a *Constriction* of the Vessels to be the productive Cause of the Pains, when the URINE is *pale* and *lympid* like Water, because a *Constriction* of the excretory Ducts of the Kidneys to a great Degree, does so lessen the Diameter of their Cavities, that nothing but the aqueous Parts of the Blood can pass thro' them to the *Pelvis*, and *Ureters*.

§. 302. The *Ureters* are likewise capable of being constricted: But I must observe, that as the *Constriction* may be greater or lesser, so there may be different Degrees of the Paleness of the Urines in different Persons, and in the same Persons at different Times.

§. 303. Sometimes we can't be certain, whether the *nephritick Pains* were occasion'd by a *Constriction* or a *Calculus*; that is during the Paroxysm: But if the Patient never before had any Symptom of being afflicted with the Stone; and if neither in the Paroxysm,

roxyſm, nor after it, there comes away with the Urine, any Stone, Gravel, or ſabulous Matter; and eſpecially if no ſymptomack Fever occurr'd, we may then with pretty good Reason ſay, the Pain proceeded from a Conſtriction of the Veſſels affected.

§. 304. The *curative Indication*, when ſuch Caſes (§. 300.) do happen, is to *relax the conſtricted Veſſels*; and thoſe Medicines and Methods of Management, which are proper for Perſons, who have ſome *Stone or Gravel* paſſing from their Kidneys to the Bladder, are likewise proper for removing Pains produced by a Conſtriction of the Veſſels; and ſuitable Remedies may be ſeen in §. 316, 321,

§. 305. 3. A CALCULUS, or *Stone*, one or more, either in the Kidneys or Ureters, is frequently the Cauſe of exquisite Pains in them, §. 298. When by any Occaſion, one or more Stones in the Kidneys are brought to preſs againſt, and fret away the covering Membrane of the adjacent Nerves, and to rub againſt their Extremities, intolerable Torture muſt be the Conſequence.

§. 306. In like Manner, when a *Calculus* or large Gravel is paſſing down, one or other,

other, or both Ureters, it may, by its Friction and Pressure against the Extremities of the Nerves situated in their Membranes, excite the Pains, which are felt in them.

§. 307. It is very requisite we be well acquainted with the *Diagnosticks* of the Case, when the Patient has a Stone or Gravel in his Kidneys or Ureters; I shall therefore observe a few Things by which we may judge, that a *Calculus*, or such-like Matter, produced the Pains complain'd of, *viz.*

§. 308. 1. If the Pain begins in one or the other Kidney, and the most exquisite Pain remains there, (tho' Pain, by a Sympathy of the Nerves, may consequentially arise in some other Parts) and brings on *Nauseas* and *Vomitings*, we may with great Probability infer, that there is some *Stone* in that Kidney, dislodged from the Place where it was at Rest.

§. 309. 2. If this Pain in the Kidney be followed with a *Numbness* of the Thigh on the same Side, we may conclude the Stone to be pretty large, occasioning that Kidney to press against the Muscle *Psoas*, and that Limb in Consequence to have some Degree of Numbness.

§. 310.

§. 310. 3. If the Pain, altho' it begins in the Kidney, moves downwards along the Region of the Ureter, and the Kidney becomes easy, we may thereby know that some small Stone or Gravel is passing from the Kidney to the Bladder; and the more exquisite the Pain is, the more large, or more rough and angulated, we may conclude the passing Stone or Matter to be.

§. 311. While I lived at *Teovil* in *Summerfetshire*, where the Water has a *petrifying* Quality, I had several Fits of the Stone, and under them have been in extreme Agonies thro' the Violence of the Pain. Sometimes the *nephritick* Paroxysm has been preceded by a bloody Urine, of which I have voided six or eight Ounces, or more, some Hours before I perceived any Thing of Pain: Then in my left Kidney most frequently I felt a Pain, which soon increased beyond what Tongue can express; and of which no one can form an Idea, that has not felt the like. After some Time this Pain moved into the Ureter, and so by slow Movements onwards thro' it to the Bladder; and as soon as the Stone dropt into it, my Pains ceased.

§. 312. These nephritick Paroxysms were, I think, always attended with *Vomitings*, which occur'd as soon as the Pain became violent. My Pains quickly brought on a *symptomack Fever*. I grew *hot* and *thirsty*, my TONGUE *white*, MOUTH *clammy*, and PULSE *quick*: But tho' I was hot, yet generally the Extremity of the Pain did make me *sweat* much, so that even in very cold Weather great Drops of Sweat would follow one another very fast. I have been thus on a Rack of Pain 20 or 30 Hours, or more, before the Stone has dropt into my Bladder. I never had any Numbness in my Thigh, which I impute to the Smallness of the Stones that came from me, having never voided one so big as a large Grain of Barley; but have been in the greatest Torture sometimes by a very ragged Stone, not so big as a Grain of Wheat.

§. 313. Having thus (§. 308, 309, 310.) taken Notice of those Symptoms, from which we may infer, that the Patient has a *Stone* or *Gravel* in the Part affected with Pain, I proceed to consider the *curative* Indications to be regarded when a Person is afflicted with this Distemper, which are these,
viz.

viz. 1. To *relieve* the Patient of his present Pains; and, 2. To order those Things which may dissolve the *Calculus*. I shall say nothing in these Papers concerning the component Parts of the human *Calculus*, or of any Medicines likely to dissolve their Union; this being a Subject different from what I proposed to consider in this Treatise. I shall therefore confine myself to the first, and more immediate Intention, which is to remove the *nephritick* Pains.

§. 314. For this Purpose (§. 313. N^o 1.) we must endeavour to *relax the urinary Passages*, and not, by any strongly stimulating *Diureticks*, urge on the Motion and Expulsion of the Stone or Gravel that may be passing to the Bladder.

§. 315. The STIMULATING DIURETICKS, in my Opinion, are not adviseable in these Cases; because they may bring on a total, and an irremoveable Suppression of Urine, and consequently inevitable Death, if there are in the Kidneys Stones, or Quantities of Gravel, too large to pass the Ureters: For the *Stimulus* of such Medicines may occasion the Kidneys so to contract, as to squeeze the Stones or Gravel into the *Pelvis* of the
Kidney,

Kidney, and Entrance of the Ureters, and hinder the Passage of the Urine into the Ureters: And therefore as we cannot be sure there are no such Stones, or Quantities of Gravel in the Kidneys, so we cannot with Safety order any stimulating Diureticks. For my Part, I would neither take them myself, nor prescribe them for any one under a Fit of the Stone. Indeed after a sufficient Use of emollient relaxing Remedies, mild Diureticks may be of Service, tho' strong and forcing Medicines might be hurtful.

§. 316. When I am called to any Person under a Fit of the Stone, I regulate my Conduct according to the first curative Indication, (§. 313. N^o 1. 314.) and endeavour by all proper Methods to relax the urinary Vessels, and render them more easily *distractile*; because, if I obtain this End, the Pressure of the *Calculus* or Gravel against the Extremities of the Nerves affected, becomes diminished, and the Pain proportionally abated: And I may add, that the painful Pressure is lessened in *Proportion* to the Relaxation of the Vessels and Membranes affected; that is, the more they are relaxed, the less becomes the Pressure, and the Pain.

§. 317. When, therefore, I am to advise for a *nephritick* Patient, I not only enquire into the Seat and Nature of his Pain, but when he had a Stool last, and whether the Excrements were hard. If they were, I conclude there is a dry *Intemperies* not only of the Intestines, but also of the urinary Parts, and then order some emollient, relaxing *Glyster* to be injected as soon as possible. And one or other of the following may be very useful on such an Occasion.

℞ *Fol. Malvæ* (vel *Althææ*) ℥ii. *Flor. Chamæm.* ℥i. *Coq. cum Furit Avenacei* ℥xii. ad lbs. *Dein Liquor. colato adde Syr. Violar. Ol. Olivæ. ana* ℥i. M. f. ENEMA tepidè infundendum. Vel,

℞ *Balsam. Capiv.* ℥i. *Diffolv. cum Vitell. Ovi q. s. Dein adde Macilag. tenuis Rad. Althææ* (vel. *Fol. Althæ. vel Malvæ*) ℥iv. *Syr. Violar. Ol. Olivæ. ana* ℥i. M. f. ENEMA ad usum eundem.

§. 318. As for Remedies to be taken at the Mouth, mucilaginous *Teas* made with the *Marsh-mallow Roots* or *Leaves*, or with the common *Mallow Leaves*, and sweetned with Honey, are proper: Only here it must be observed, that these *Teas* should be made by boiling the Roots or Leaves of which they

they are made till the Water feels glibby or mucilaginous. *Mallow Gruel* made with such a mucilaginous Water and Oatmeal, and sweetned a little, either with *Sugar*, or *Honey*, is a most excellent Liquor for nephritick Patients.

§. 319. A great Variety of Medicines proper to the Intention of relaxing the urinary Passages may be easily contrived. *Boles*, or *Draughts* may be easily made with *Sperm. Ceti*, &c. and oily Mixtures *cum Mel. & Ol. Olivar*, vel. *Ol. Amygdal. dulc.* may fitly be prescribed.

§. 320. I would advise the Patient to drink Liquids very sparingly, till he has taken a sufficient Quantity of relaxing Things; after which, by Degrees, he may drink more freely, especially if the Stone or Gravel be dropt from the Ureter into the Bladder; which the Patient may know, if he be attentive to the Motion of the obstructing Matter, and to the Time, and Place where the Pain ceases.

§. 321. I will only here add an historical Account of the Management of myself under a *nephritick* Paroxysm, which I hope will not be disagreeable.

HISTORY XXXII.

§. 322. *July 2. 1738.* in the Morning, about Eight o'Clock, I made a small Quantity of *bloody Urine*; and apprehending a very painful Fit of the Stone to be coming on, I prescribed for myself as follows.

℞ *Sperm. Ceti* ʒi. *Dissolv. cum Vitell. Ovi* q. s. *Dein adde Aq. Pulegii* ʒiss. *Syr. de Althææ* ʒii. *M. f. HAUSTUS.*

℞ *Mellis, Ol. Olivæ. ana* ʒii. *℞ f. MISTURA.*

§. 323. I took the Draught about Nine o'Clock, and in a little more than half an Hour, began to take of the *oily Mixture*, and took about three Quarters of an Ounce of it for a Dose every two or three Hours; and in the Evening order'd it to be repeated with the Addition of *Mel.* ʒi. I finish'd the first Pot of it, and began the second before I went to Bed.

§. 324. All the Urine I made this Day was very foul, and nearly as deep as red Port Wine; but about Nine o'Clock in the Evening there appear'd a great Alteration in the Colour of it: It then look'd of the Colour of Beer. I had little or no Appetite to

to Food, and drank very little till the Evening, when I drank three Dishes of Tea with Milk; and two Hours after a Pint of small Beer. I had *no Pain* this Day, either in my Kidneys, or Ureters, or any other Part of my Body.

§. 325. *July 3.* I slept well in the Night preceding, but soon after I was up, I had the *Strangury*, which continued all the Day, tho' not in any violent Degree. I had likewise an uneasy Sensation down the Region of my *left Ureter*, from the Kidney to the Bladder. About Eight o'Clock in the Evening I was pretty much troubled with *Pains* in my *left Ureter*, and at the *Neck* of my *Bladder*, but they totally ceased before Nine o'Clock. My *Urine* all this Day was of its natural Colour. I drank several Times this Day of *Mallow Gruel* sweetned a little with Sugar, half a Pint at a Draught, and finished the second Pot of the Mixture of *Mel & Ol. Olivæ*.

§. 326. *July 4.* I took a third Pot of the *oily Mixture* made as the last, and drank *Mallow Gruel*. Felt this Day a little Pain in my *left Kidney*, which soon left me; and I have remain'd easy and well ever since.

§. 327. About eight or Nine Years ago, I had the same Symptoms of a *bloody Urine*, and an uneasy Sensation (which hardly deserved to be called Pain) in my *left Kidney* and *Ureter*; and after four or five Days voided a small Stone, about the Bigness of a Grain of Wheat. I then managed myself in the same Manner, and took freely of the *oily Mixture*. But this Time (§. 322. *ad* 326.) I don't know that any Stone or Gravel passed from me; but I can't say there has not, because being obliged to go daily abroad, I could not have the Opportunity always of knowing what came from me.

§. 328. There is another Symptom, which Sometimes does attend *nephritick* Pains; that is, a *total* SUPPRESSION of URINE, which may be occasion'd either, 1. by Stones falling so into the *Pelvis* of the Kidneys, as to prevent any Urine passing into the Ureters; which was the Case of the Child mentioned in my *Rational Methods of curing Fevers*, §. 88. Or, 2. By Stones lodged at the Endings of the Ureters, where they open into the Bladder, and thereby preventing the Urine from passing out of the Ureters into the Bladder, as it happen'd to the Child

Child now mention'd. Or, 3. By such a CONstriction of the *urinary* excretory *Tubes*, as renders them unpassable, so that the most subtile Parts of the Water of the Blood cannot pass thro' them into the Cavity of the Kidneys.

§. 329. We have Reason to ascribe the *Suppression of Urine* to the *first* Cause assign'd, (§. 328. N^o 1.) when there is great Pain in the Kidneys; and to the *second*, (§. *ib.* N^o 2.) when the Pain is in the Ureters; but to the *third* Cause, (§. *ib.* N^o 3.) when it happens without any Pain in the Kidneys; in which Case there is a *Paralysis* of the adjacent Nerves.

§. 330. A remarkable Instance of this last Sort of a total *Suppression of Urine*, (§. 328. N^o 3. 329.) has been under my Care, and happily at last removed; which I did intend to relate at large, but the Length of it obliged me only to give a summary Account of the Case, *viz.*

That on *Monday, August 29. 1737.* I was sent for to Mrs. E—— W——, a Widow Gentlewoman, aged near 65 Years. She had been taken ill the *Wednesday* before, *viz. August 24.* with violent *Pains in her Bowels.* On the *Friday Night (Aug.*

26.) she took Notice that she made *no Water*, and had no *Inclination to it*; but could not recollect when she made Water last. About this Time she had very acute *Pains low in her Back, below her Girdle*; and, to her Feeling, near the Back Bone on each Side; but she had *no Pain* in either *Kidney*, or *Neck of her Bladder*; nor in any other Part of her Body. The Suppression of her Urine continued all this Week, and no Sense of any Weight in her Bladder, nor the least Motion to make Water. *Saturday, Sept. 3.* in the Forenoon, by my Advice, a *Catheter* was passed into her Bladder by Mr. FERN the Surgeon, but it was found empty. Her Condition to me appeared most deplorable, this being the ninth or tenth Day of the Suppression of her Urine, (for she was not certain when it began) in all which Time she had not made a Drop of Water. However, at last God blessed my Endeavours with Success, for the next Night, (*Sept. 4.*) about Ten o'Clock, I received a Letter from her Apothecary, acquainting me, that she had that Evening made Water twice, to the Quantity of five or six Ounces in the Whole; and that the
first

first was very fetid, and also the second, tho' not in so great a Degree. From this Time she continued to make Water in a good Proportion, to the Quantity of what she drank. I saw the first Waters the next Day, which look'd paler than white Wine, and a little turbid. This Gentlewoman assured me, that she never had any Symptoms of Stone or Gravel, nor any Difficulty in making Water in all the foregoing Part of her Life, that she remember'd; and she has lately told me, that since this Suppression of Urine has been removed, she has not voided any Stone or Gravel, or any other Matter, that could obstruct the urinary Passages.



CHAP. XII.

C H A P. XII.

Containing an Account of the Pains which sometimes attend the Evacuation of the Urine, as to their Causes and curative Indications, with some suitable Histories.

§. 331. 5. **W**E are in the next Place to consider those PAINS, which sometimes afflict Persons in the *Evacuation of their Urine*, as to their Causes and curative Indications.

§. 332. One Kind of these Pains is called the STRANGURY, which is a very painful Discharge of *Urine* in very little Quantities, as it were by Drops : There is an almost continual and *painful Urging* to make Water, and it may be not a Spoonful comes off in several Tryals. This is a tormenting Symptom to those that have it.

§. 333. This Distemper (§. 332.) may be produced by different Causes ; *e. g. 1. A Stone in the Bladder*, which by a frequent Attrition or Rubbing against the *Sphincter*,
may

may not only make its covering Membrane bare of its defensive *Mucus*, but sometimes excoriate, or rub away some Part of the Membrane itself: Whence it must needs happen, that the acrimonious or saline Particles of the Urine produce exquisite Pains in the Neck of the Bladder, and stimulate the antagonist Muscles of it to *alternate, frequent* and *strong Contractions*, by an over or too great a *Stimulus* to *relax* for the Evacuation of the Urine, that is in the Bladder.

§. 334. These contrary Effects of a *Stimulus*, when it happens in a much greater or much lesser Degree, will not appear strange to those, who know that some cathartic Medicines in a moderate Dose only stimulate the Motion of the Stomach and Intestines downwards, but in a larger Dose, by a greater *Stimulus*, will produce an inverted or contrary Motion, and occasion both violent Vomitings, and Purgings.

§. 335. Here it deserves to be noted, that the *Strangury* from a *Stone* in the Bladder, happens sooner or later, as the Stone is more rough or smooth, and as it happens more or less frequently to press against the Neck of the Bladder; and we may pretty well

well know, whether there is a Stone in the Bladder, by considering the following Particulars.

§. 336. 1. If there be no Pain, no Uneasiness in either of the Kidneys or Ureters, but only in the Neck of the Bladder. 2. If there be no Inflammation of its Sphincter, which may be known by the Constancy and Violence of the Pain, and a Fever concomitant. 3. If there be no Ulcer in the Sphincter of the Bladder, which is discover'd by purulent Matter coming off with the Urine. 4. If there be no Excoriation of the inner Membrane of the Sphincter, by acrid Particles fretting it, known by the Ease a Person has upon having evacuated all his Urine; and, 5. If there be no Remission but rather an Increase of Pain upon the Bladder's emptying and contracting itself, we may then conclude with great Probability, that there is a *Stone* in the Bladder.

§. 337. The curative Indications in this Distemper (§. 335.) are, 1. To give the Patient those Medicines which will dissolve the Stone, when such Remedies are discover'd: Or, 2. To take out the Stone by Lithotomy,

thotomy, if there be no such Medicines.

3. To prescribe those Medicines which may deterge and heal any Excoriations of the Neck of the Bladder. 4. To advise those

mucilaginous, and absorbent Things, which may abate the Acrimony of the Urine, and lessen its *Stimulus* against the Sphincter.

§. 338. 2. The STRANGURY sometimes happens to Persons, who have no Stone in the Bladder; and in such, it must take its Rise from some other Cause, *viz.* 1. That which separates from the Sphincter of the Bladder the mucous Matter secreted for its Defence, from the Acrimony of the Urine; or, 2. That which hinders the Secretion of it.

§. 339. The common Cause, which separates that mucous Matter, which should cover the Membrane of the Sphincter of the Bladder, is some *acrimonious, morbid* Humour, whether it be produced by *venereal* Practices, or results from a scorbutic, corrosive Quality of the animal Fluids.

§. 340. I say (§. 339.) *an acrimonious morbid* Humour, because the saline natural Acrimony of the Urine of the Persons in perfect Health will never make the Membrane

brane of the Bladder, or its Sphincter, naked of its defensive *Mucus*; but if the Blood becomes very acrimonious by Means either of a venereal or a scorbutic Cause, those corrosive Salts may be secreted with the Urine, which may incide, and separate the mucous Matter from the Neck of the Bladder, and even produce Excoriations in it, nay, sometimes a dangerous Ulcer; the Consequence of which must be great Pain in making Water; as the Extremities of many Nerves in such a Case, are exposed to immediate Contact with, and Stimulation from the acrid, corroding Particles, which come along with the Urine: And if the *Stimulus* be sufficiently strong, it must occasion a *Stillicidium*, or a painful making Water by Drops, by forcing the Sphincter to frequent and violent Contractions, as has been noted in §. 333.

§. 341. Therefore in Patients, who have no *Calculus*, we must endeavour to find out, whether the Symptom proceeds from a *venereal*, or *scorbutic* Cause. If from a venereal, besides prescribing those Medicines, which may administer a present Relief, we must endeavour to remove that venereal, corrosive

corrosive Acrimony, which his lewd Practices had brought into his Blood.

§. 342. If it resulted only from a *scorbutic* Cause, besides ordering those Things which may take off the *Stimulus* from the Neck of the Bladder, we must direct those Remedies which may cure the scorbutic Quality of his Blood.

§. 343. There is another painful Distemper to be consider'd as to the Evacuation of the Urine from the Bladder, which is called the DYSURY, which is a painful Pissing of a *scalding Urine*, whether the Quantity be more or less.

§. 344. This (§. 343.) differs from the former (§. 332.) in several Particulars. 1. Here is not that frequent and vain Urging to make Water, as in the Strangury; nor, 2. A Discharging of the Urine by Drops: But, 3. Here is an *Heat*, or *Scalding* of the Urine, which is not in the former. But sometimes both Distempers are complicated in one Person.

§. 345. I shall here consider the *Dysury*, when it is not complicated. This most frequently results from the same Causes which produce the former Kind of Pains, (§. 332.)
when

when those Causes exist in a lower or milder Degree, and the *Stimulus* is not strong enough to produce those alternate Contractions of the antagonist Muscles of the Sphincter, which make a *Stillicidium Urinæ*: But sometimes this Distemper is the Consequence of an Ulceration or Excoriation of the urinary Passage, occasion'd by a virulent *Genorrhœa*.

§. 346. That Sense of *Heat*, which a Person under this Disease perceives, when he is making Water, and which occasions him to say his Water *scalls* him, I do not take it to proceed from a Degree of Heat in his Urine actually greater than in Time of Health; for if a meer Degree of Heat, greater than the healthful Standard, would produce such a Sensation, every Person under a burning Fever, must have the like Sensation. But it is not so in Fact; and therefore we must conclude, that the Loss of the defensive *Mucus* from the *Urethra*, and the Extremities of the Nerves there being made in a Manner naked, is the Reason why the Patient has a Sense of such great Heat, and suffers so much Pain in the Part so affected.

§. 347. For the Cure of this Distemper,
the

the *Indications* are, 1. To correct the morbid, acrimonious State of the Blood. 2. To cleanse and heal the excoriated Parts; and, 3. To promote the Secrerion of the defensive *Mucus* where it is wanted.

§. 348. If this Malady proceeds from a venereal Cause, the Patient must be treated accordingly.

§. 349. There is another Cause both of the *Strangury* and *Dysury*, which must not be forgotten, *viz.* a *Defect* in the Secrerion of the defensive *Mucus*, in Bodies where none of the aforementioned Causes have any Existence. This is the Case, when these Distempers happen to Persons meerly thro' *old Age*. The mucilaginous Glandules in some old Bodies become many of them incapable of performing their proper Office, as they ought; and either do not secrete any Thing from the Blood, or at least not a sufficient Quantity to preserve the Nerves of the Sphincter and *Urethra* from being stimulated, and suffering Pain by the acrimonious Particles of the Urine.

§. 350. The Pains in making Water, which result from the Cause last assign'd, §. 349. frequently accompany the aged Persons af-

P

licted

flicted with them thro' the Remainder of their Lives ; for if the mucilaginous Glandules, thro' Age, are worn out, or have lost their Texture, no Medicines can renew them : But if they are only obstructed, or too much relaxed, and on that Account the Humour they secrete is too much diluted, watery, and *not* mucous, we may hope for Relief by a due Use of proper Remedies. And as we cannot see, or certainly know the State of those Glandules, it is very adviseable to try what Advantage may be obtain'd from Medicine.

§. 351. The *curative* Indications in Cases of this Nature (§. 349.) are, 1. To deterge the Glandules and secretory Ducts. 2. To strengthen the Solids ; and, 3. To abate the *Acrimony* of the animal Fluids. I shall only add three or four Histories, and so conclude this Chapter.

HISTORY XXXIII.

§. 352. *July 5. 1736.* Mr. RICHARD HOWARD, aged about 46 Years, came to me for Advice : He complain'd that he had the *Strangury* to an Extremity ; that the
painful

painful and fruitless Urgings to make Water, were so violent, that he could not tell how to bear them. I prescribed the following Remedies, which presently relieved him, and soon freed him from his Misery.

R. *Sperm. Ceti* ℥i. *Camphor.* gr. iii. *Syr. de Albæ.* q. s.
M. f. Bolus horis sextis ad iv. vices, si opus fuerit, sumendus, superbibendo Coch. vi. *Misturæ* sequentis.

R. *Gum. Arabic.* ℥ss. *Dissolv.* in *Aq. puræ* ℥vi. *Dein adde*
Aq. Pulegii ℥v. *Syr. de Albæ.* *Syr. de Mecon. ana* ℥ss.
Et f. MISTURA.

HISTORY XXXIV.

§. 353. *February* 20. 1736-7. I was sent for to Mr. E—L, a Gentleman aged about 32 Years: He was afflicted with the *Strangury*, attended with violent *Pains in his Bowels*, a great *Looseness*, which was succeeded with a *Vomiting* of every Thing he took into his Stomach. I apprehended there was a very great *Acrimony* in the Contents of his Stomach and Intestines, and in his Blood, which was the productive Cause of those torturing Symptoms, and therefore prescribed for him as follows.

℞ *Ol. Junip. chym. gut. iii. Sacchar. alb. ʒi. Lapid. Contrayerv. Cretæ albæ, ana ʒss. optimè misceantur ; dein adde Aq. Cinnam tenuis ʒiss. Aq. Pæon. comp. ʒii. Syr. Balsamic. ʒi. M. f. HAUSTUS sextâ quâque horâ ad iv. vices bibendus.*

§. 354. *February 21.* I visited him again, and found that the Medicine prescribed, §. 353. had been effectual to free him from his Vomitings, the Pains of his Bowels, and his Strangury ; and to prevent the Return of them, I order'd the same Draught to be repeated, (only directing but two Drops of the *Ol. Junip.* instead of three, and *Pulv. è Chel. Cancr. simpl ʒss.* instead of *Cretæ alb. ʒss.*) and to be taken once in six or eight Hours, which happily answer'd my Intention.

HISTORY XXXV.

§. 355. *March 12. 1736-7.* being sent for, I visited Mrs. E——s, aged near 50 Years. She complain'd that she had been in extreme Misery for several Days, by a violent *Strangury*, so that she could get no Rest Night nor Day. She was *hot* and *thirsty*, and her *PULSE quick*. I prescribed the following Medicines for her, viz.

℞ *Sperm.*

℞ *Sperm. Ceti* ℥ii. *Ol. Amygdal. dulc.* ℥i. *Ol. Junip. chym. gut.* viii. *Syr. de Althæ.* *Syr. de Mecon. ana* ℥ss. & f. MISTURA, cujus capiat semunciam horis quartis, Phialâ prius agitatâ; & quartis horis, temporibus intermediis, bibat *Cochl.* iii. *Misturæ* sequentis diureticæ.

℞ *Sal. Absinth.* ℥ii. *Sal. Prunell.* ℥i. *Succ. Limon.* ℥i. *Aq. Pulegii* ℥v. *Sp. Nitri dulc. gut.* 40. *Sacchar. alb. q. s. ad saporem gratum,* & f. MISTURA diuretica.

℞ *Sp. Nitri dulc.* ℥ii. cujus cap. gut. xv. vel xx. in Haustu. Decoct. *Rad. Althæ.* & *Rad. Petroselin.* pro Potu com.

§. 356. *March* 13. I visited her again, and found that her *Pains* and *Strangury* were considerably abated; that she had slept between Whiles in the Night, and that she made more Urine than she had done for some Days past; and therefore only order'd the *oily* and *diuretick Mixtures* prescribed the Day before, to be repeated and taken as the former; and that she should continue the Use of those Remedies so long as they did her Service, and she had Occasion for them.

§. 357. I was afterwards inform'd, that they were repeated again *March* 14. and 15. and the *diuretick Mixture* again the 17. and that she continued daily growing better, and soon became free from the *Strangury*, and Stoppages of her Water, and the febrile Symptoms.

HISTORY XXXVI.

§. 358. *August 2.* 1738. in the Afternoon, being sent for, I visited Mr. JOSIAS BELL, aged 26 Years, when I examin'd into the Beginning and Progress of his Sickness, he acquainted me, that he was taken ill *July 26.* with PAINS in his Head, and all over his Body: On which Occasion he had ten or twelve Ounces of Blood taken from his Arm; that soon after the Pain of his Head left him, but his other Pains remain'd.

§. 359. *July 27.* he said a Looseness came on; that he had about twelve Stools, and that then his other Pains went off.

§. 360. *July 28.* the Looseness returned, and continued till the Evening; and he had a very good Night after it.

§. 361. *July 29.* he thought himself as well as ever he was in all his Life, and eat an hearty Dinner; but in the Night grew a little out of Order.

§. 362. *July 30.* in the Morning, he took an Infusion of half a Drachm of *Rhubarb*, and vomited most of it up, yet had three or four Stools in the Forenoon. In the Evening, about Seven o'Clock, he walked about

about three Miles into the Country, and return'd about Ten ; when he felt an *Uneasiness in his Breast*, which he apprehended was occasion'd by the great Dew which fell that Evening ; but he slept in the Night pretty well.

§. 363. *July 31.* he was much out of Order, had *moving Pains* about him, and at Night, when he went to Bed, drank half a Pint of Red Wine mull'd to make him sweat, yet sweated but little, and was restless in the Night.

§. 364. *August 1.* he rose about Six of the Clock in the Morning, went out on Business, had *Pain all over him*, as he express'd it, and was exceeding sick, and found a *Difficulty in making Water* ; made very little, and that of a deep Colour. He sent for his Apothecary in the Morning, had two Glysters given him in the Afternoon ; but they produced no Stool, neither had he any Stool after those mention'd, §. 362.

§. 365. This Day in the Evening, most *acute Pains* took him in the *Bottom of his Belly*, just above the *Os Pubis*, and a most violent *Strangury*, which kept him waking,

restless, and on a Rack of Torment all the Night.

§. 366. *August 2.* he remain'd in the same Misery, with exquisite *Pains* in the *Bottom of his Belly*, and most *painful Ur-gings* to make Water. He could have no Stool; often try'd to make Water, and many Times could make none: He drank plentifully, yet in 24 Hours, from *Tuesday Evening* to *Wednesday Evening*, did not make above four Ounces, and that of a very deep *Coffee-colour* and *dreggy*, which dropt a deep, or rather a *blackish red Sand* to the Bottom of the Pot: His Flesh was temperate as to Heat, and his Pulse not a great deal quicker than in Health.

§. 367. Thus being acquainted with his Case, I order'd him to drink *Mallow Gruel*, a little sweetned, and prescribed for him as follows.

℞ *Sperm. Ceti* ℥i. *Dissolv. cum Vitelli Ovi* q. s. *Dein adde Aq. Pulegii* ℥i. *Aq. Nephritic.* *Syr. de Althæana* ℥ii. *M. f. HAUSTUS* sextâ quâque horâ ad iv. vices bibendus.

℞ *Mellis* ℥iiij. *Ol. Olivæ.* ℥ii. & f. *MISTURA*, cujus capiat semunciam horis secundis.

℞ *Balsam. Capiiv.* ℥ii. *Ol. Anisi* gut. iv. *Dissolv. cum Vitell. Ovi* q. s. *Dein adde Aq. Pulegii* ℥vi. *Syr. de Althæa,*

thæ. Ol. Olivæ. ana ʒi. M. f. ENEMA tepidè infundendum.

ʒ Camphor. ʒss. Ol. Olivæ. ʒss. Ol. Absinth. gut. iv. M. f. LINIMENTUM, quo Pars affecta tepidè inungatur per horæ quadrantem.

§. 368. *August* 3. about Ten o'Clock in the Forenoon, I visited him again. It was about Seven or Eight o'Clock the Evening before, that he began to use the Medicines I order'd. The Glyster had been given him, which procured four Stools, and brought off a great deal of Wind; but he was restless, tossing and tumbling all the Night, thro' the Violence of his *Pains*; and the *Strangury* continued as tormenting as ever; and this Forenoon his *Flesh* was *hot*, his *Pulse quick*; and he was troubled very much with the *Hiccups*. He had made near four Ounces of Urine the last 16 Hours, very foul, like Dregs in the Bottom, but not quite so deep colour'd as the former. I prescribed for him as follows.

ʒ Sperm. Ceti ʒii. Ol. Amygdal. dulc. ʒi. Ol. Junip. chym. gut. viii. Syr. de Althæ. Syr. de Mecon. ana ʒss. ʒ f. MISTURA emolliens; cujus capiat semunciam omni quadrihorio, & horis quartis, temporibus intermediis bibat Haustum sequentem.

ʒ Sal.

℞ *Sal. Prunell.* ℥ss. *Sal. Tartari* gr. v. *Aq. Lactis alex.*
 ʒi. *Aq. Nephritic.* ʒiij. *Syr. de Althæ.* ʒii. *M. f.*
HAUSTUS diureticus.

℞ *Fol. Malvæ* M. i. *Flor. Chamæm.* ʒi. *Sem. Anisi* ʒii.
Sem. Lini ʒi. *Coq. cum Aq. puræ* q. s. ad lbs. *Dein*
adde Liquori colato Sal. Prunell. ℥ii. *Sp. Vini camphorat.*
 ʒii. *Syr. Violar.* *Syr. de Althæ. ana* ʒi. *M. f. ENEMA*
tepidè infundendum.

§. 369. In the Evening, between Six and Seven o'Clock, I visited him again. The *Glyster* had been given him, and produced three Stools: The *Hiccup* left him on taking the diuretick Draught: He had some refreshing Naps this Day: The Pains in his Belly and the *Strangury* were abated, and the Colour of his Urine much alter'd towards that which is healthy, and had somewhat of a Sediment in the Bottom. I prescribed as follows.

℞ *Sperm. Ceti* ℥i. *Camphor.* gr. iii. *Balsam. Capiv.* gut. xv. *Syr. Balsamic.* q. s. *M. f.* *BOLUS* inaurandus, & sextis (vel si opus fuerit, quartis) horis sumendus, superbibendo *Cochl.* iv. *Mistura* sequentis.

℞ *Gum. Arabic.* ʒiij. *Sal. Prunell.* ℥ii. *Sal. Absinth.* ℥i. *Dissolv. in Aq. Pulegii* ʒvi. & dein adde *Aq. Nephritic.* ʒi. *Syr. de Althæ.* *Syr. de Quinque Rad. ap. ana* ʒss. & f. *MISTURA diuretica.*

§. 370. *August* 4. about Eleven o'Clock
 in

in the Forenoon, I visited him again. He had an easy Night, and slept well; made Water several Times in good Quantities, with much less Difficulty, and sometimes with perfect Ease. The three first Waters (for they were all preserved separate) dropt a fine large whitish Sediment. I prescribed for him as follows.

Repetatur ENEMA heri præscriptum, & immediatè injiciatur.

℞ *Sperm. Ceti* ʒss. *Ol. Amygdal. dulc.* ʒii. *Ol. Junip. chym. gut.* iii. *Syr. de Althæ.* *Syr. de Mecon. ana* ʒii. *℞ f. MISTURA oleosa* pro Dos. i. horis quartis ad ii. vices sumenda.

§. 371. In the Evening, about Seven of the Clock, I visited him again: He had been pretty easy all the Day. He had three Stools by the Help of the Glyster, felt but little of the *Strangury*; and after he had taken the *Glyster*, made his Water with a great deal of Ease; and now it was of the Colour of Canary. This Afternoon the *Hiccup* return'd, but it soon ceased on his taking two or three Spoonfuls of the *diuretick Mixture* prescribed the Night before. Here I may observe, that the *diuretick Draught* in §. 368. and this *diuretick Mixture*,

ture, are good Remedies against the *Hiccups*, when they happen in Fevers, and I think they will be useful against obstinate *Hiccups* that are no Symptoms of any Fever. I prescribed for him as follows.

Pergat in usu *Misturæ oleosæ* manè præscriptæ, et sextis horis ad ii. alias vices sumat unam.

Repetatur *Mistura diuretica* (cum *Gum. Arabic. &c.*) heri præscripta, cujus horis sextis, temporibus intermediis, capiat Cochl. iv. & capiat Dofin ejusdem ullo tempore, si opus fuerit, contra Stranguriam vel singultum.

§. 372. *August 5.* I visited him again in the Forenoon. He had an easy comfortable Night, and refreshing Sleep; very little of the *Strangury*, and no *Hiccups*. He had a pretty large natural Stool in the Morning; but his FLESH was still too *hot*, and his PULSE a little *too quick*. I prescribed nothing, but order'd him to take three Spoonfuls of the *diuretick Mixture* once every three Hours, and now and then a Tea Spoonful of the *oily Mixture* prescribed *August 2.*

§. 373. In the Evening, about Seven of the Clock, I visited him again. He continued easy, made Water freely, sat up five or six Hours; but he was still too hot, and his

his Pulse too quick. I prescribed for him as follows.

℞ *Sal. Absinth.* ℥i. *Coccinell.* gr. iii. *Succ. Limon.* ℥ss.
Aq. Laëtis alex. ℥i. *Aq. Pæon. comp.* ℥iii. *Syr. de Al-*
thæ. ℥i. *Sp. Nitri dulc. gut.* x. *M. f. HAUSTUS sextâ*
quâque horâ ad iv. vices bibendus.

§. 374. *August 6.* about Six o'Clock in the Evening, I visited him again: He told me that he slept pretty well the last Night, but not altogether so well as the Night before; that he had felt very little Pain since I saw him last, but that he had somewhat of a *Looseness*. I prescribed for him as follows.

℞ *Lapid. Contrayerv.* gr. xv. *Cretæ alb.* gr. v. *Aq. Cin-*
nam. tenuis ℥iss. *Aq. Pæon. c.* *Syr. Balsamic. ana* ℥ii.
M. f. HAUSTUS cardiacus, horis sextis ad iii. vices bi-
bendus.

§. 375. *August 7.* I visited him, and found him easy and chearful: He had slept well, made Water freely and plentifully; his Heat was temperate, and Pulse regular. He said he found himself a great deal stronger, and his Stomach coming to Food. I prescribed the following Drops, and took my Leave of him.

℞ *Elixir.*

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℞ *Elixir. Vitriol. Minstch.* ʒss. *ejus capiat gut. x. vel xv. vel xx. in ʒvi. lbs.* *Aq. Bristol.* horâ unâ ante prandium & coenam.

§. 376. He never voided any Stone before nor since this Illness, nor had any Pain in his Kidneys or Ureters; and the Quantity of Sand which I saw was very inconsiderable.



CHAP. XIII.

C H A P. XHI.

Containing an Account of After-Pains, as to their Causes, and curative Indications, with suitable Histories.

§. 377. 6. **A**FTER-PAINS is another Distemper deserving the Consideration of those who are studying Physick. This frequently happens to Women in their Childbed, soon after they are deliver'd of their Burden.

§. 378. These Pains (§. 377.) are call'd *After-Pains*, both because they occur only after the coming away of the Birth, and After-Birth, and are Consequences of it. In order to the forming a right Notion of them, we must animadvert on a few Things, *viz.*

§. 379. 1. That during the Woman's Pregnancy, there is a much greater Flow of Blood thro' the Ramifications of the *spermatick*, and *hypogastrick* Arteries, which then pass thro' the Membranes of the Womb,
and

and by means of the *Placenta*, supply the Occasions of the *Fætus*.

§. 380. 2. That during a Woman's Pregnancy, much larger Quantities of reflux Blood (by the Occasion of what is return'd from the *Fætus* and *Placenta*) pass thro' the spermatick and hypogastrick Veins into the *Vena cava*.

§. 381. 3. That when, upon the Birth of the Child, the *Placenta* is separated from the Womb, all the sanguine Arteries, and Veins, which passed thro' the Membranes of the Womb, and thro' the *Placenta*, are rent *asunder* close at the inner Superficies of the Womb.

§. 382. 4. That the Consequence of this Rupture of the sanguine Vessels, is a *Flux of Blood* into the Cavity of the Womb, and thence thro' the *Vagina ad extra*: Which Flux of Blood is greater or lesser, in Proportion to the Diameter of the sanguine Vessels, and the *Impetus* of the Blood, and to the Degree of *Slowness* in the Contraction of the Orifices of those Vessels.

§. 383. 5. That by the *gradual* CONTRACTION of the Orifices of the ruptured sanguine Vessels, the Flux of red Blood from
the

the Womb, gradually abates ; and as the Diameter of those Orifices diminish, so the red Colour of the Fluid evacuated, does likewise abate, till it looks of the Colour of the *Serum* of the Blood, which yet grows more lymphid and pale, till the Orifices of the broken Vessels are quite closed ; and then the *Flux* entirely ceases.

§. 384. Thus happen, thus proceed, and thus terminate those Evacuations from the Womb, which are called the *Lochia*, or Child-Bed Purgations, which continue longer in some Women than in others, as the Orifices of the broken Vessels in some Women are longer in contracting close.

§. 385. We may, from what has been observed in §. 381, 382. easily understand that the FLOODINGS, which sometimes occur in Time of Womens Labour, do proceed from the Rupture of the sanguine Vessels in the Womb, and some incidental Impediment which hinders the Contraction of their Orifices. This is the Case when the *Placenta* happens to be separated before the Birth, and when the separated *Placenta* remains in the Womb after the Child is born.

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§. 386.

§. 386. The Remedy, in such Cases, is for the Midwife immediately to deliver the Woman of her Burthen, which will be a Removing the Cause of such Floodings; upon which the Diameter of the Orifices of the ruptur'd Vessels commonly contract so much, as to render the sanguine Flux moderate.

§. 387. If a *Flooding* continues after the Child and After-Burthen are brought away, it is commonly owing either, 1. To *Clods* of extravasated, coagulated Blood remaining in the Womb; or, 2. To a Deficiency in the contractile Force of the Coats of the sanguine Vessels.

§. 388. Immediately upon the Woman's Delivery, the Midwife may often take away the first Occasion; and as to the other, the contractile Force of the Vessels may be increased, and the Violence of the Flux stay'd by suitable Medicines; but the Consideration of these Things is foreign to the Subject I am upon, and therefore I shall say no more about them.

§. 389. If we consider the State of Things before a Woman's Delivery, and the Alterations of that State, which follow upon it,
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we may be led into the Knowledge of the Causes of those Pains, which so frequently afflict Women in Child-bed.

§. 390. In a Woman before her Delivery, these following Things are to be observed, *viz.* 1. That the Womb is vastly distended, and all the Membranes, which compose it, greatly stretched. 2. That the Ligaments of the Womb sustain a great Weight. 3. That the Diameter or Cavity of all the Vessels sanguine and lymphatick is greatly enlarged for conveying to the *Fætus* the Supplies of Fluid needful for its Nourishment and Increase of Bulk, and bringing back those Fluids in the Course of Circulation after subserving those Purposes. 4. That the Intestines were very much pressed by the Burthen contain'd in the Womb. 5. That by the coming away of the Child, the Neck of the Womb and the *Vagina* in its whole Length, are violently and extremely stretched.

§. 391. In a Woman deliver'd of her Burthen, these following Alterations happen, *viz.* 1. That her Womb becomes empty. 2. That the Coats or Membranes, which compose the Womb, collapse and fall into a *contracting* State. 3. That all

the ruptured Vessels, and their component Fibres come to exert that contractile Force, which is natural to them. 4. That the great Pressure which was against the Intestines before the Woman's Delivery, is removed. 5. That the Cavity between the Intestines and *Peritonæum* is enlarged.

§. 392. It is pretty obvious from the Consideration of these Particulars, (§. 390, 391.)

1. That the Resistance made to flowing Blood, by the *contracting* of the sanguine ruptured Arteries of the Womb, which naturally follows a Woman's Delivery, may well occasion *After-Pains*, and very probably is the most frequent Cause of those Pains, which are perceived *in the Womb*; for when the Womb is emptied of its Burthen, and its Membranes are collapsed together, and the sanguine Arteries are exerting their natural contractile Force, the Contraction of them will be strongest or greatest in those Parts of the Vessels, which are most remote from the *Impetus* wherewith the Heart propels the Blood into the *Aorta*; consequently the Contraction of them will be greatest in the Membranes of the Womb where they terminate; and as a greater Quantity

Quantity of Blood constantly flowed thro' the spermatick and hypogastrick Arteries during the Woman's Pregnancy, than before she was with Child ; so when a Stop is put to its Flowing thro' the *Placenta* into the *Fœtus*, or Child, and it has no Way to pass but either into the Womb thro' the contracting Orifices of the ruptured Arteries, or into the spermatick and hypogastrick Veins, no Wonder that the Blood in the capillary Ramifications of those Arteries distending them, presses too much the Extremities of the Nerves situated in their Coats ; which is a Production of Pain.

§. 393. Hence we may perceive, that the more quick and strong the Contraction of those Arteries are, or the greater the *Impetus* of the Blood happens to be, the more acute must be those Pains. This Account seems to be confirmed by the Efficacy of those Medicines, which abate the *After-Pains* ; such as *Sperma Ceti*, and other emollient Things, which manifestly tend to render the Contraction of the Vessels more slow and moderate ; and this also will appear the more probable, if we consider that Women are commonly more afflicted with

After-Pains in their second, and succeeding Child-beds, than in their first Lying-in; which seems to be owing to this Cause, *viz.* that in the second, and succeeding Child-beds, the sanguine Arteries of the Womb contract more strongly, than after their first Delivery of a Child.

§. 394. Another Cause of After-Pains may be the passing of Clods of coagulated Blood thro' the *Vagina*, made very tender and sore thro' the Violence it suffered by the passing of the Child thro' it. The Membranes of the Womb by contracting do somewhat help to thrust forward its Contents into the *Vagina*, which by its contracting at the same Time, tho' not so forcibly as the Membranes of the Womb, makes some Resistance to the passing Clods of Blood; and thence results painful Pressures against the Nerves situated in the Coats of the *Vagina*; when this is the Case, the Woman may perceive her Pains to be in the Passage from her Womb.

§. 395. And when this (§. 394.) is the Case, not only such internal Emollients, which are proper in the former Case, (§. 392, 393.) may contribute to the Woman's Relief,

lief, but also emollient Fomentations applied warm to the *Pudenda* may prove very serviceable.

§. 396. Another Occasion of After-Pains may be a too quick Contraction of the Ligaments of the Womb, which may produce a painful Pressure against the Nerves interwoven with the other Vessels, and the Membranes which compose them.

§. 397. Hence it appears, that those emollient Medicines, which may render such Contraction more slow, are the rational and proper Remedies, as constant Experience has proved them to be.

§. 398. There may be another Cause of *After-Pains*, viz. elastick Air in the Cavity of the Intestines; for the Air in the Bowels, which, before the Delivery, gave the Woman no Uneasiness, because the Contents of her Womb occasion'd such a Pressure against the Intestines, as hinder'd the Air's exerting its natural Elasticity; yet when that Pressure is removed, the Particles of elastick AIR, when *too abundant* in the Bowels, may expand themselves, distend the Bowels, and by pressing against the Nerves, produce Pains as in flatulent Cholicks. *Vid.* §. 17. N^o 4. §. 210.

§. 399. When this is the Case, the Woman perceives her Bowels to be the Seat of the Pains; and those Things are the proper Remedies, which either expel or absorb the Air. To this End, the giving to the Woman her Caudles, and Liquors pretty hot, may contribute, because the warm Steams of Aliment (that is not flatulent in its Nature) will absorb Air, as we may infer from some of Dr. *Hales's* Experiments, and from the Experience of many Women, who have tried this Method in Child-bed. I shall conclude this Chapter with an Account of two Cases of Persons afflicted with these Pains,

HISTORY XXXVII.

§. 400. *May 9. 1734.* being sent for, I visited Mrs. M—— G——, aged 37 Years, She had been deliver'd of a Child about Four o'Clock in the Morning, and complain'd of being grievously rack'd with *After-Pains*. I prescribed the following Medicine, which presently relieved her, and three or four Times taking it entirely freed her from them.

R. Sperm. Ceti ℥i. Ol. Amygdal. dulc. ʒss. Ol. Junip. chym. gut. v. Syr. de Meconia ʒij. Sacchar. Cand. rubr. ʒi. ℞ f. MISTURA pro Dos. i. immediate sumenda, & horis quartis, vel sextis, vel octavis ad iii. vices si opus fuerit, repetenda.

HISTORY

HISTORY XXXVIII.

§. 401. July 12. 1735. in the Forenoon, being sent for, I visited Mrs. A—P—s, (who had been deliver'd of a Daughter several Hours before) and found her on a Rack with *After-Pains*, which occasion'd her sending for me. I prescribed the following Medicine for her Relief.

℞ *Sperm. Ceti* ℥ii. *Ol. Olivæ*. ʒss. *Ol. Junip. chym.* gut. viii. *Syr. de Mecon.* ʒi. *Syr. de Althæ.* ʒss. & s. f. a. MISTURA anodyna, cujus capiat semunciam immediate, & tertiis vel secundis, vel singulis horis, si opus fuerit, repetatur Dosis, Phialâ prius bene agitâtâ.

§. 402. In the Evening I visited her, and found that her Pains were abated; but she complain'd of great Soreness on the left Side of her Belly, (*vid. §. 444. infra*) and that she was faint at Times, and her *Spirits very low*. I prescribed for her as follows.

℞ *Lapid. Contrayerv.* *Sperm. Ceti ana* ℥ss. *Nuc. Moscat.* gr. v. *Castor. Russiæ* gr. iii. *Syr. Balsamic.* q. s. M. f. BOLUS inaurandus, & sextâ quâque horâ ad iv. vices sumendus, si perbibendo Haustum feri Lactis, in quo Flor. Chamæmeli incoct. fuerint.

℞ *Ol. Olivæ*. ʒi. *Ol. Anis.* *Ol. Carui chym. ana* gut. x. M. f. LINIMENTUM, quo Partes affectæ tepidè & benè inungantur.

§. 403.

§. 403: *July 13.* I visited her again, and was inform'd that she had still Returns of her Pains, tho' they were considerably abated, and the Intervals between them much longer. I prescribed the following Mixture, and had no Occasion to order any Thing else.

℞ *Sperm. Ceti* Div. *Ol. Junip. chym. gut. viii.* Dissolv.
cum Vitelli Ovi q. s. Dein adde *Syr. de Mecon.* *Aq.*
Bryon. comp. ana ℥ss. *Aq. Pulegii ℥iiss.* & f. MISTURA
anodina, cujus capiat semunciam horis quartis, vel sepius
 si opus fuerit.



CHAP. XIV.

C H A P. XIV.

Containing an Account of some of the Pains affecting the Anus, or Fundament, viz. of the Tenasmus, as to its Causes, curative Indications, and proper Methods of Cure.

§. 404. 7. **T**HE TENASMUS is another painful Distemper deserving Consideration. This is a continual painful Urging to go to Stool, when little or nothing can be discharged.

§. 405. This Malady may be produced by very different Causes. *E. g.* 1. The *Pressure of a Stone* in the near adjacent Bladder may occasion these Motions in the *Sphincter of the Rectum*; in which Case, the Position of the Stone should be alter'd by putting the Body into a Posture fit for that Purpose, or by the Assistance of a skilful Surgeon. 2. An *Inflammation* of the Neck of the Bladder may prove a painful *Stimulus* to the *Sphincter of the Rectum*.

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When this is the Case, it may be known by those Symptoms, which discover the Neck of the Bladder to be inflamed, *viz.* a continual *violent Pain* there, with Heat and Throbbing, if there is a Tendency to Suppuration; and by the *Tenasmus* coming soon after such Inflammation is begun.

§. 406. In this Case (§. 405. N^o 2.) the *curative Indications* are two, *viz.* 1. To remove the Inflammation of the Neck of the Bladder. 2. To remove the Effect of it from the Sphincter of the *Rectum*.

§. 407. 3. Another Cause of a Tenasm may be too great Humidity or *Relaxation* of the Sphincter and Membranes of the *Rectum* by an acrimonious Lymph; and if there be a *Procidencia Ani*, we may be sure such is the Cause. In this Case, fomenting the Parts with warm Wine, or with a Decoction of the Woods with Aromatics in Lime Water, mixed with an equal Part of Wine; and injecting Glysters made of the same, may greatly relieve the Patient; after which Linnen Rags twice or thrice doubled and wetted *cum Sp. Vini rectificato*, and applied to the Fundament, and the Application repeated a few Times, may perfect the Cure.

§. 408.

§. 408. 4. There is another and more frequent Cause of the *Tenasm*, and that is an *acrid*, *saline*, and *slimy Humour* adhering to the Coats of the *Rectum*, and stimulating the Sphincter of it to these very uneasy, troublesome, and vain Motions to Stool.

§. 409. When we have no Reason to impute the Distemper to one or other of the forementioned Causes, (§. 405, 407.) we may reasonably conclude it results from this last.

§. 410. When the *Tenasm* is produced by the Cause last assigned, (§. 408.) the Indications of Cure are three, *viz.* 1. To evacuate the *acrid*, *slimy Humours*. 2. To strengthen the Intestine affected; and, 3. To remove the *acrimonious*, and *viscid Qualities* of the Blood.

§. 411. For obtaining the first Intention, (§. 410.) the injecting some detergent Glysters may be effectual. *E. g.*

℞ *Sal. Cathartic. amar.* ℥ss. *vel* ℥i. *Dissolv. in Aq. Pulegii* ℥iv. *Dein adde Syr. de Spina Cervin.* ℥i. *M. f.*
ENEMA tepidè infundendum. *Vel,*

℞ *Balsam. Capiv.* ℥ii. *Ol. Anis. chym. gut.* vi. *Dissolv. cum Vitell. Ovi* q. s. *Dein adde Aq. Pulegii* ℥iv. *Syr. de Spina Cervin.* ℥i. *M. f.* ENEMA ad eundem usum.

§. 412.

238 *Of painful Urgings to Stool.*

§. 412. The second Indication (§. 410.) may be obtain'd by the following Remedies, or such-like, after the *Rectum* has been cleansed by such *Glysters* as the forementioned, §. 411.

℞ *Flor. Chamem.* ℥ii. *Sem. Carui* ℥i. *C. C. C. Pulv. Cretæ alb. Pulv. ana* ℥ii. *Coq. cum Aq. puræ q. s. Dein Liquoris colati* ℥iv. *adde Sp. Vini Gallic.* ℥iss. *Sacchar. alb.* ℥ss. *M. f. ENEMA tepidè infundendum, & repetendum toties quoties opus fuerit. Vel,*

℞ *Lign. Sassafr. Raf. Lign. Quajac. Raf. ana* ℥ss. *Sem. Anis.* ℥ii. *Coq. cum Aq. Benedic. simpl. q. s. Dein Liquoris colati* ℥iv. *adde Sp. Vini Gallic.* ℥iss. *Syr. Balsamic.* ℥ss. *M. f. ENEMA ad usum eundem.*

Externè Anus foveantur calidè quantum æger ferre poterit, cum *Fomento sequent.*

℞ *Abfinth. Verbasci, Flor. Chamemel. Rosar. rub. ana* ℥ii. *Aq. puræ bullientis* ℥vi. *Stent in Digestione fervidâ, & clausa per horam unam. Dein Liquoris colati* ℥iv. *Adde Sp. Vini Gallic.* ℥iv. *M. f. FOMENTUM. Vel, Sp. Vini Rect. Ano applicetur, ut §. 407.*

§. 413. The third Indication of Cure, §. 410. may be effectually gain'd by such Medicines as the following.

℞ *Antimon. diaphoret.* ℥i. *Flor. Sulphur.* ℥iij. *Conserv. Cortic. Aurant.* ℥iss *Syr. Bacc. Sambuc. q. s. M. f. ELECTUARIUM, cujus capiat quantitatem Nucis Moscatae bis in die, superbibendo Haustum Decoct. Lign. Guajac. Raf. vel Ligni Sassafr. Raf. Vel,*

℞ *Sp. Lavendul. comp. Elix. Vitriol. Myns. ana* ℥ss. & *f. MISTURA, de qua cap. gut. 30. vel 40. bis in die in Haust. Decoct. Lign.*

C H A P. XV.

Containing an Account of the Piles, as to their Causes, curative Indications, and proper Methods of Cure; to which is added a suitable History.

§. 414. **T**HE next painful Distemper deserving some Consideration, is the PILES: By which Term I do not mean that Flux of Blood, which sometimes happens from the *hæmorrhoidal* Veins, but the painful Tumours of them, whether those Tumours are formed within the *Anus* out of Sight, or without the Body, and visible.

§. 415. These Tumours, in some different Bodies, have different Forms and Appearances, as to Figure, Magnitude, and Colour, and thence different Denominations: But they all proceed from the same Cause, and require the same Methods of Cure.

§. 416. A PILE, or hæmorrhoidal Tumour, seems to be a *Varix* of one of the *hæmorrhoidal*

hæmorrhoidal Veins, which receives the the Blood from a capillary sanguine Artery, which brings it to the *Anus*. And as every Vein gradually grows wider the further it goes from the Extremity of the Artery that supplys it with Blood; so it is reasonable to expect, that the Course of the Blood in the Veins should rather become more easy, and that the Motion of it thro' these Vessels should never meet with any Hindrance. We may well think that the Blood, which has passed thro' the smaller Canals of the extreme Ramifications of the Arteries, may freely pass thro' the larger Canals of the Veins; and thus indeed it is, when the Veins in all their Parts are in due Order: But sometimes in one capillary Vein or other, there happens an Impediment, so that the Blood received into it cannot pass on so fast as it was impelled from the Artery. Hence that Part of the Vein between the Extremity of the Artery, and the Place where the Impediment happen'd, must gradually dilate or tumify; and continue increasing in Bulk so long as Blood continues coming faster into the distended Part of the Vein,

Vein, than it can pass from it, or till the distended Part bursts.

§. 417. Thus (§. 416.) happens, and thus proceeds every *Varix*, in any Vein of the Body; and I take those Tumours we call the Piles, to be so many *Varices*.

§. 418. And as to the Cause of them, tho' there commonly is a morbid Quality in the Blood of the Patient; yet I do not apprehend that such a Quality makes the Obstruction in the affected Vein, for the Reasons already assign'd, (§. 416.) and if it does not, something else must be the Cause of these local Diseases, which I take to be a *Constriction* of the Vein (by some Means) in that Part of it where the *Varix* terminates, or a Pressure on that Part of the affected Vein by some adjacent Tumour.

§. 419. But whatever be the Cause producing that Diminution of the Diameter of the hæmorrhoidal Veins, which occasions them so vastly to dilate or swell, the Consequence is violent Pain in the *Anus*, and the adjacent Parts affected; which Pain immediately results either from too great a Pressure against the Extremities of the Nerves, (situated in the Parts affected) or from acrid

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Particles

Particles brought to immediate Contact with them ; or from both.

§. 420. However, the *curative* Indications evidently are these following, *viz.* 1. To remove the Impediment, that has happen'd in the hæmorrhoidal Veins, to the Course of the Blood from those Arteries, which propel their Fluid into them. 2. To correct the morbid Quality of the Blood, if any Symptoms discover such a Quality.

§. 421. If the first Indication be accomplished, the Tumours subside, and the *hæmorrhoidal Veins* contract to their natural Smallness ; and it is not commonly difficult to remove the Impediment or Obstruction, which occasions these Tumours, if proper Applications be made to the Fundament as soon as such an Obstruction discovers itself ; which it does very soon by the intolerable Pain which is perceived in the Part : If then the Pledgit of Linnen wetted *cum Sp. Vini rect. vel cum Ol. Succini* be applied to the Fundament, and repeated if there should be Occasion ; it will seldom fail of removing the Obstruction, procuring Ease, and preventing the Production of these painful Tumours.

§. 422.

§. 422. By such Means (§. 421.) I myself have more than once been freed from incipient Piles, and hitherto preserved from so troublesome a Complaint; and by advising such Applications, I have been the happy Instrument of freeing others.

§. 423. If the Piles have been of any Continuance, I would recommend the following Method.

℞ *Herb. Verbasci* M. iv. *Coq. cum Aq. puræ q. f. ad lbii.*
Dein ponatur Liquor fervidus in vas idoneum, in Lascio
vel Scaphio; tum æger calidè quantum ferre poterit ex-
cipiat vapores calidos in Partes affectas: & hoc Remè-
dio utatur bis in die. Vel in defectu *Herbæ* prioris

℞ *Fol. Malvæ* M. iv. *Fol. Absinth. vulg.* M. ii. & cum
Aq. puræ q. f. F. DECOCTUM ad usum eundem. Vel,

℞ *Rad. Althæ.* ℥iij. *Sem. Anis.* ℥i. M. & cum *Aq. puræ*
q. f. f. DECOCTUM ad lbii. ut prius utendum. Vel
cum uno aut altero horum Decoctorum *Anus* bis in die
cum Stuphis laneis tepidè foveatur per horæ quadran-
tem. Tum bis in die horâ unâ post usum Decocti ap-
plicetur Partibus affectis unum vel alter Remediorum se-
quentium.

℞ *Ol. Olivar.* *Ol. Succini, ana* ℥ii. M. f. LINIMEN-
TUM, quo Partes affectæ tepidè inungantur. Vel,

℞ *Ol. Olivar.* ℥ii *Ol. Succini* ℥ss. M. pro LINIMENTO
ad usum eundem. Vel,

The Pains of the Piles.

℞ *Ol. Succini* ℥ss. *Camphor. Pulv.* ℥ss. *M. f. LINIMENTUM.* Vel,

℞ *Aq. Benedicte. simpl.* *Sp. Vini rect.* ana ℥i. *M. f. FOTUS,* quo Partes affectæ foveantur. Vel,

℞ *Sp. Vini rect.* ℥vii. *Tinct. Myrrh.* ℥i. *M. pro FOTU,* ut prior utendus.

HISTORY XXXIX.

§. 424. *April 28. 1735.* my Advice was desired for a married Lady about 28 Years of Age, very much afflicted with the Piles. I was told that the hæmorrhoidal Tumours in this Patient were sometimes out of the Body, and visible, and sometimes retired, and sunk out of Sight. I prescribed the following Remedies, and then gave Directions for the Use of them.

℞ *Ol. Succini* ℥ss. *Sp. Lavendul. comp.* gut. xx. *M. f. LINIMENTUM.*

℞ *Sp. Vini rect.* ℥iijss. *Sp. Lavendul. comp.* *Aq. Hungaric.* ana ℥ii. *M. f. FOTUS,* quo Partes affectæ, si opus fuerit, foveantur.

§. 425. I order'd the Liniment to be first used, and the *Fotus* to be applied only in Case the *Liniment* proved ineffectual: And directed the Lady's Woman to begin the Use
of

of the Liniment, when the Piles appeared least, and then gently, but well to rub them with it; and to repeat the Application once a Day, or every 12 Hours, if there was Occasion, and the Lady found no Inconvenience from it; but that the Parts affected should be gently and well rubbed *cum Ol. Olivar. tepefact.* if the Parts affected became more painful notwithstanding the Use of the Liniment.

§. 426. If the Liniment proved ineffectual, I directed the Foment to be applied, and to begin the Use of it when the Swellings were most up in the Body, and that then the Parts affected should be gently wetted with some of it, once every 24 or 12 Hours; and that if the Parts affected become more painful notwithstanding the Use of it, they should be washed with warm Water; and if they still grew more painful, then to anoint them *cum Ol. Olivar. tepefacto.*

§. 427. Some Time after, this Lady's Woman came, and informed me, that the Use of the Liniment soon freed her Mistress from her Pains; that she remain'd very easy, and they had no Occasion to try the Foment.

C H A P. XVI.

Containing an Account of Pains in the Back, and Sides below the Diaphragm, with suitable Histories.

§. 428. II. **P**Ainful Distempers of the *containing* Parts of the *Abdomen*, are either,

1. The *Pain of the Back* below the Diaphragm, or,

2. The *Pain of the Sides* below the Diaphragm. But these, as to their Causes, curative Indications, and Methods of Cure, may be easily understood from what has been said concerning Pains of the *Side* and of the *Back* above the Diaphragm, *Chap. VIII.* And therefore I shall only subjoin some Histories of Persons afflicted with them.

HISTORY XL.

§. 429. *March 23. 1736-7.* being sent for, I visited Mrs. C — E, aged about 34 Years.

Years. She complain'd that she had been afflicted with a violent *Pain in her Back*, from her Waist downwards, for the three or four preceding Months, which grew worse. The Pains return'd every Night when she grew warm in Bed, and were often more extreme than her Labour Pains, and continued two or three Hours, or more. She was often forced to rise again, and when she was up, her Pains would abate. She was very well in the Day-time, and had no Manner of feverish Symptoms in the Night. I prescribed the following Remedies for her, which, with the Blessing of God, were effectual for her Cure without any Repetition.

℞ *Antimon. diaphor. Sal. Absinth. Sal. Prunell. ana ℥i. Aq. Cinnam. tenuis ℥iijss. Syr. e Succ. Limon. Syr. Balsamic. ana ℥ii. Sp. Nitri dulc. gut. xx. M. f. JULAPIUM, de quo capiat Coch. ii. sextis horis, Phialâ prius agitâ.*

℞ *Ol. Oliuar. ℥i. Ol. Absinth. chym. gut. x. M. f. LINIMENTUM, quo Partes affectæ inungantur Vesperi & Mane per horæ quadrantem.*

HISTORY XLI.

§. 430. *June 5. 1738.* being sent for, I
R 4 visited

visited Mrs. S—B—, aged 25 Years, a married Person, two Months gone with Child. She told me, that the *Wednesday* before, *May* 31. she was taken with a *Pain in her Back*, which she imputed to a Cold she thought she had got the Evening before in going by Water. This Pain she said had been increasing ever since, extending all *down the Back bone, to the Bottom of her Back*; being somewhat moving, and sometimes more violent towards her Shoulders, sometimes more strong towards the Bottom of her Back; that her Pains had been greater the two last Days, and were still increasing this Day, and extended into her *Bowels* on the right Side of her *Belly*, and into her right Groin, and were very violent in those Parts, as well as in her Back. She also complain'd of a Want of Appetite, and Lowness of Spirits.

§. 431. She had *miscarried* twice: The first Time at the End of three Months, which was preceded by a *Pain in her Back*, and then other Symptoms of an approaching Abortion. The second Time, she miscarried at the End of two Months, which was preceded by *Pains in her Back and Bowels*, and therefore was apprehensive she should miscarry again. I order'd her to keep her Chamber,

Chamber, and to avoid stirring about till she was better, and prescribed for her the following Remedies.

℞ Rad. Tormentill. Lapid. Contrayerv. ana gr. xv. El. Mithridatii ℥i. Syr. Balsamic. q. s. M. f. Bolus in aurandus, & sextâ quâque horâ ad iv. vices sumendus, superbibendo Coch. iv. *Julepii sequent.*

℞ Sal. Succini vol. gr. viii. Aq. Cinnam. tenuis ℥iv. Aq. Mentb. ℥iij. Aq. Pæon. comp. ℥i. Sacchar. alb. q. s. ad saporem gratum. M. f. JULEPIUM.

§. 432. *June 6.* I visited her again, and found her Pains greatly abated; and therefore order'd four *Boluses*, and another Bottle of the same *Julep*, to be taken as the former.

§. 433. *July 7.* I visited her again, and her Pains were in a Manner gone, and her Spirits were better: However, I thought it best to order another Repetition of the *Bolus* and *Julep*.

§. 434. *June 8.* I visited her again, found her free from her Pains, her Spirits stronger, and a better Appetite to Food; but considering that she had twice miscarried, and had but a weak and infirm Habit of Body, I did not think it safe for her to leave off the Use of Medicines yet, and therefore prescribed for her as follows.

℞ Rad.

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Rad. Tormentill. Lapid. Contrayerv. ana ℥i. Syr. Balsamic. q. s. M. f. Bolus inaurandus, & bis in die, per aliquot dies sumendus, superbibendo uncias duas Julapii sequentis.

Sal. Succini vol. gr. iv. Aq. Cinnam. tenuis ℥ii. Aq. Mentb. ℥i. Aq. Pæon. comp. Syr. Balsamic. ana ℥ss M. f. JULAPIUM.

§. 435. She continued the Use of these Medicines a few Days, and recover'd a good Appetite, chearful Spirits, more Strength, and better Health than she had enjoyed for a long Time, and remain'd free from her former Disorders, till in *July* a dreadful Fire happen'd not far from her, which burnt down several Houses, and frightened her to that Degree, which soon threw her into violent Pains, Floodings, and brought on a hasty Abortion,



C A A P. XVII.

*Containing an Account of the
Cramp, as to its Causes, curative
Indications, and Methods of Cure,
with a proper History.*

§. 436. IV, **W**E are now come to consider the *fourth* and last Tribe of *Painful Distempers*; namely, those incidental to the LIMBS; which may be discussed under three general Denominations, *viz.* the *Cramp*, the *Rheumatism*, and the *Gout*; and I shall discourse of them in the Order they are mentioned.

§. 437. I. The CRAMP comes under our Notice. This is a very violent, and exceeding *painful Contraction* of some Muscle commonly in one or other of the Limbs; and most frequently in the Thighs, Legs, or Feet: Sometimes it happens in some Muscle of the Belly or Side; but wherever it happens, it proceeds from the same Causes, and may be cured by the same Methods.

§. 438. It may be proper here to consider
the

the State of the Muscle under this Disease, and how the *spasmodic Pains* are produced; which may lead us into the Knowledge of the right Way of removing them.

§. 439. Let me therefore observe, 1. That as the Muscle, which has the *Cramp*, is in a State of *Contraction*; and under a Contraction much greater than that which any voluntary Motion naturally puts it into, so all its Vessels are proportionally fuller of Fluid.

§. 440. 2. That as the sanguine Arteries are too much distended with Blood, so the distending Blood presses against the Extremities of the Nerves situated in the Coats of those Arteries; and from that Pressure, as I apprehend, the spasmodic Pains do proceed. I am confirmed in this Notion by considering, that the Pains cease immediately upon the emptying those Vessels of the exceeding Quantity of the Blood that was in them; that is, upon the Removal of the too great Pressure against the Extremities of the Nerves affected.

§. 441. The *curative* Indication therefore is to procure a *Reflux* of Blood from the turgid and contracted Muscle, and to bring

bring it to an *Æquilibrium* with its antagonist Muscle, and then the painful Malady ceases.

§. 542. Sometimes this Indication is obtain'd by *Friction*: Rubbing the Part affected with a warm Hand often, makes the Blood pass from the sanguine Arteries, into the sanguine Veins; removes the Obstruction, quickens the Circulation, and makes the contracted Muscle to relax, and return to its natural State. And the following Remedies may produce the same Effects to the Ease of the Patient.

℞ *Ol. Succini. Ol. Olivar. ana* ʒss. *M. f. LINIMENTUM*, quo Pars affecta tepidè & benè inungatur. Vel,

℞ *Camphor. pulv. ʒii. Ol. Olivar. ʒi. M. f. LINIMENTUM*, ut prius tepidè utendum. Vel,

℞ *Sp. Vini rect. ʒvi. Aq. Hungaric. Tinct. Myrrhæ, ana ʒi. M. f. FORTIS Parti affectæ applicandus.*

§. 443. I shall only relate one History of this Sort of *Pains*, and then consider that very frequent Disease called the *Rheumatism*.

HISTORY

HISTORY XLII.

§. 444. May 22. 1735. Mrs. A—P—s, aged about forty-three Years, big with Child, and within eight Weeks of her Reckoning, desired my Advice. She acquainted me, that she had been grievously afflicted with the *Cramp* almost from the Time of her Quick'ning, and that of late she was more frequently and violently troubled with it; that she often had CRAMPS in her *Thighs, Legs, and Belly*, and sometimes on the *Backs of her Hands*, Day and Night, on any sudden Motion, or Turn of her Body; nay, almost whenever she stirred; and that when she was in Bed, if she happen'd to cough or sneeze, or put her Legs down straight, or if she changed her Posture, it would bring the *Cramp into her Belly*, sometimes about her *Navel*, sometimes on the *right Side*, but most frequently on the *left Side* of her Belly, and that wherever the *Cramp* came, it drew her Flesh up in *Lumps*, as she express'd it.

§. 445. She said the Pain was extreme, as if the Part was violently pinched. She further related, that when a FIT of the
Cramp

Cramp came, the CHILD never moved within her; that she could feel nothing of it till the Fit was over; but that as soon as the *Cramp* was gone, she felt it *shivering* and *trembling* for a While; and when that Sort of Motion was over, it would *struggle* very much, sometimes for near half an Hour, and bear strongly downwards towards the Birth; and that herself was always *faint* and *low spirited* after a Fit of the *Cramp*. She observed that if she could break Wind, it sometimes gave her some Relief.

§. 446. She likewise inform'd me, that in a former Pregnancy the MIDWIFE advised her to a *Galbanum* Plaister to her *Belly* against the *Cramp*; which she applied, but that she was in more Misery after it was on, than before; and therefore after some Days took it off again.

§. 447. I prescribed for her the following Remedies.

℞ *Sperm. Ceti* ℥i. *Ol. Olivar.* ℥vii. *Ol. Nuc. Moscat.* chym. gut. iv. M. f. LINIMENTUM, quo Partes affectæ, ut opus fuerit, tepidè inungantur.

℞ *Lapid. Contrayerv.* ℥ii. *Sal. Absinth.* ℥i. *Aq. Menthe.* ℥iiss. *Aq. Cinnam. fort.* ℥iiss. *Sp. Lavendul. c.* gut. 40. *Laudan. liquid.* Syd. gut. 20. M. f. JULAPIUM cardiacum, de quo cap. *Cochl.* i. vel ii. pro re natâ, Phialâ prius agitâtâ.

§. 448.

§. 448. *May 26.* I visited her again, and found her better as to her *Cramps*; but she complain'd of a *Pain in her Head*. I order'd her to continue the Use of the the *Liniment*; and prescribed as follows.

℞ Pulv. e Chel. Cancr. simpl. Cretæ albæ, ana ʒss. Aq. fontan. Aq. Cinnam. fort. ana ʒii. Sacchar. alb. q. s. ad saporem gratum. M. f. JULAPIUM cardiacum, cujus cap. Cochl. i. pro re natâ, post Phialæ agitationem.

℞ Aq. Hungaric. Aceti, ana ʒii. M. pro Foru cephalico, quo Nares & Tempora subindè, ut opus fuerit, foveantur.

§. 449. *May 27.* the last *Julep* and *Liniment* were both repeated, and again *May 28.* and *June 12.* the *Liniment* only was repeated; and I had no Occasion to prescribe any Thing else. She went out her Time, and was deliver'd of a Daughter the 12th of *July*.



C H A P. XVIII.

Containing an Account of the Rheumatism, as to its Causes, and curative Indications, with suitable Histories.

§. 450. 2. **I** SHALL now treat of the RHEUMATISM, under which the Patient is afflicted with *great Pain* either in his *Shoulders, Arms, Hands, Wrists, Knees, or Ankles*; in one or other, more or fewer of these Places.

§. 451. RHEUMATICK PAINS may likewise be produced in the *Viscera*, and other Parts of the Body, as well as in the Limbs, (*vid. my Medical Practice* §. 228.) and when they do so, they require the same Medicines and Method of Cure.

§. 452. These Pains (§. 450.) are commonly violent, and sometimes most exquisite and intolerable, and are often attended with a *Swelling* and *Redness* of the Parts affected; and, if they continue violent, do often introduce a *sympomatick* Fever.

S

§. 453.

§. 453. But in order to the Forming right Notions of these Diseases, divers Things are to be considered, *viz.* 1. That the Blood of Persons afflicted with them, is always *viscid, fizy, or glutinous*, as appears evident from the glewy Matter, which coagulate and covers the *Coagulum* of the red Globules of the Blood taken by Phlebotomy from rheumatic Patients (*a*).

2. That the Parts affected, tho' they swell, and in some Measure look reddish, and feel hot, yet do not suppurate.

3. That *rheumatic Pains* and *Swellings* commonly happen near the Joints of the Bones, and Tendons of the Muscles, at or near their Insertions into the Bones.

4. That the lymphatick Arteries in the Parts affected, near the Articulation of the Bones of the Limbs, which convey their Fluid to the mucilaginous Glands, are smaller and more numerous than in many other Parts of the Body.

5. That the rheumatick Pains are sometimes *shifting* from one Place to another, and again returning to the former.

(*a*) *Sanguis Pleuriticorum similis.* Dr. Sydenham de Rheumatismo Process. Integr. p. 21.

§. 454. From what has been observed, (§. 453.) it seems reasonable to infer the following Propositions, *viz.*

Prop. 1. *That the Blood does not stagnate in the capillary sanguine Arteries of the Parts swelled:* Because if it did, those Tumours must *suppurate*, as *Phlegmons* do, unless the stagnant or obstructed Blood be timely discussed by Remedies proper for that Purpose; but this is not the Case in those painful Swellings, which afflict Persons under *Rheumatisms*, §. 453.
N^o 2. *Ergo, &c.*

Prop. 2. *That Blood is not protruded from the capillary sanguine Arteries of the Parts affected into lymphatic Arteries:* Because in such a Case the Blood extravasated from its proper Vessels, being incapable either of passing onwards thro' the Lymphaticks into the sanguine Veins, or of returning back into the sanguine Arteries, must stagnate and putrefy; or, in other Words, must *suppurate*, contrary to §. 453.
N^o 2.

Prop. 3. *That the lymphatick Arteries in the Parts affected must secrete a Fluid*

more viscid *than in Time of Health*, §. 453.
N^o 1.

Prop. 4. *That the viscid Lymph secreted by those lymphatick Arteries from the Blood, must distend them, in some Proportion to the Degree of its Viscidity, and Quantity :* Because the viscid Quality of it will render its Motion thro' their Extremities into the lymphatick Veins slower than in Time of Health, and slower than it comes into those Arteries.

Prop. 5. *That the Distention of those lymphatick Arteries must occasion too great Pressures against the Extremities of the adjacent Nerves :* The Sense of which is Pain.

§. 455. From what has been observed in §. 453. N^o 1. it appears that *viscid Humours*, or a glewy Quality in the Blood, is one *antecedent Cause of Rheumatisms* ; and from §. 454. Prop. 4, 5. it seems evident, that too great a Distention of the lymphatick Arteries, or too great Pressures against the Extremities of the Nerves affected, by *Lymph* obstructed in its Course thro' its Vessels, is one *proximate Cause* of them.

§. 456. And let me add, that the Parts
affected.

affected swell, and the Pains increase in Proportion to the increasing Quantity of the *viscid Lymph* obstructed in its Course, and distending its Vessels.

§. 457. But there may be another conjunct Cause of rheumatick Pains, *viz.* an *alkaline Acrimony*, as well as a *Viscid*ity of the Blood: Particles of alkaline Salts may, from the Endings of some secreting Ducts, be brought to immediate Contact with the Extremities of the Nerves affected, and so produce most exquisite Pains.

§. 458. One or both of the Causes assigned, *viz.* 1. *Pressures* against the Extremities of the Nerves affected, by Means of lymphatick Vessels distended with viscid Humours; or, 2. *Acrid Particles* brought, somehow, to immediate Contact with the Extremities of the Nerves affected, most frequently produce the Pains complain'd of.

§. 459. Hence (§. 458.) we may infer, that the *curative* Indications are, 1. To attenuate the *viscid* Blood. 2. To correct its *Acrimony*. 3. To remove all Obstruction from the Vessels affected, and dislodge any saline, acrid Particles protruded to the Ex-

tremities of any Nerves; but this last, indeed, is commonly a natural Consequence of accomplishing the two first Intentions; and how they may be effected, will appear from those Histories wherewith I shall close this Chapter.

§. 460. There is, I think, another Kind of *rheumatick Pains*, which proceeds from FLATULENCIES; that is, too much *Air*, or *Wind* in the Blood.

§. 461. I call these Pains (§. 460.) *rheumatick*, because they happen in, or very near the same Parts usually affected with the other rheumatick Pains, and seem such to those who have them.

§. 462. These PAINS (§. 460.) may be distinguished or known from others by two Symptoms, *viz.* 1. By their *shifting* Places; being sometimes in one Part, and sometimes in another. 2. By their *coming*, or *increasing*, when the Patient grows warm in Bed. By one or other, or both these Symptoms conjunctly, we may be able to judge when rheumatick Pains are produced by Flatulencies in the Blood.

§. 463. That I have assigned (§. 460.) the true Cause of these moving Pains, will appear,

pear, if we consider, 1. That there is *Air* in all the Aliment received into the Stomach. 2. That there is *Air* always in the Blood, and always going into it with the Chyle. 3. That when the Blood is too *thin* and *watery*, and the *AIR* too abundant in it, we may easily apprehend, that in some Parts of the Blood, and in those Parts of the sanguine Arteries, where the Contraction of them is weakest, (that is, in the capillary Ramifications of them, near their Extremities) the Particles of the *redundant Air* may expand themselves, and make painful Pressures against the Extremities of the adjacent Nerves; which *Pain* ceases when the *expanded Air* is protruded by succeeding Quantities of Blood into the sanguine Veins; which grow larger and larger in their Diameter, the farther they go from the Extremities of the sanguine Arteries, which supply them.

§. 464. When that Portion of *redundant Air* comes near the Extremities of such sanguine Arteries in any other Limb, it expands and produces Pain in the same Manner. Thus may *shifting*, or *moving* Pains be produced.

§. 465. 4. If we consider, that when a Person is in Bed, the Heat of his Body augments, and that the Blood, and more especially the *Air* in it, becomes rarified, we may easily apprehend how Pains in the Limbs may be brought on, or increased by the Warmth of the Bed, when the Blood is too *watery*, and the Particles of *elastick Air* are too abundant in it. *Vid.* Page 128. *Corol.* 2, 3.

§. 466. The *curative* Indications, when *Flatulencies* in the Blood concur to produce the rheumatick Pains complain'd of, may be understood, by what has been said §. 80. they oblige us so to contrive the Medicines, as that they may *absorb Air*, and promote the Evacuation of it from the Blood.

§. 467. And I may here fitly remind my Reader, that *AIR* may be excreted from the Blood into the Cavity of the Stomach and Intestines, (*vid.* §. 211, 212, &c.) and into the *Pelvis* of each Kidney; and therefore that those Medicines, when needful, which promote Excretion either by *Urine* or *Stool*, may also procure an Evacuation of *Air* from the Blood.

§. 468. The Case of *rheumatick Fevers*, that is, Fevers, which bring on *rheumatick Pains*, I have consider'd in my Book intitled, *Medical Practice, &c.* §. 225, *ad*

236. to which I must refer my Reader ; and how Fevers *symptomatick*, introduced by the Violence of previous *rheumatick Pains*, are to be managed and cured correspondent to the Indications noted, §. 451, will appear from the following Histories.

HISTORY XLIII.

§. 469. *December 26. 1731.* in the Morning, being sent for, I visited Mr. JOHN LEVI, of *Witham* in *Essex*, aged about 32 Years. He had been taken ill the *Thursday* before (*Dec. 23.*) with *violent Pains in his Bones*, especially about his *Joints*. He had often SHAKINGS in his *Hands* and *Arms*, thro' the Greatness of his Pains.

§. 470. When I came to him, his TONGUE was *moist*, the HEAT of his Body *temperate* ; his PULSE was *moderate* as to Strength, but somewhat quicker than in Health : He was very *thirsty*, and his URINE look'd like Water in which so much *Bole Armoniack* had been dissolved, as would bring it to the Consistence of Milk ; and it remain'd equally thick from the Top to the Bottom, and dropt no Sediment, tho' it stood many Hours. He went to Stool frequently ; and
yet

yet his *Body*, his *Legs*, and *Wrists*, swell'd ; and he complain'd of being very *sore* and tender, and could neither walk nor stand, nor turn himself in Bed. I prescribed for him the following Medicines.

℞ *Bezoar. Mineral.* ℥ss. *Rad. Serpentar. virg.* Coccinell. ana gr. v. *Myrrh.* gr. iii. *Croci* gr. ii. *Camphoræ* gr. i. *Syr. Bacc. Sambuc.* q. s. *M. f.* BOLI immediate sumendus, superbibendo Haustum Pseudo-Theæ cum *Salviâ* pptæ.

℞ *Milleped.* ppt. *Sal. Nitri*, ana ℥i. *Aq. Pulegii* ℥ii, *Aq. Bryon.* comp. ℥iiss. *Sp. Lavendul.* comp. *Syr. Balsamic.* ana ℥ii. *M. f.* JULAPIUM cardiacum & attenuans, cujus cap. *Cochl.* i. subindè, Phialâ prius agitâtâ.

§. 471. In the Evening I visited him again, and found his *Pains* somewhat abated ; his other Symptoms much as they were ; but he complain'd much of his *Thirstiness*. I prescribed for him as follows.

Pergat in usu BOLI mane præscripti, & sextâ quâque horâ ad iii. alias vices sumat unum.

℞ *Pulv. e Chel. Cancr. simpl.* *Sal. Prunell.* *Sal. Absinth.* ana ℥i. *Aq. Lactis alex.* ℥iiss. *Aq. Cinnam. fort.* ℥iiss. *Sacchar. alb.* q. s. ad saporem gratum. *M. f.* JULAPIUM attenuans, cujus cap. *Cochl.* i. in Haust. *Aq. fontan.* cum pauxillo *Sp. Vini Gallic.* subindè Siti urgente, Phialâ prius agitâtâ.

§. 472. December 27. I visited him again, and

and was inform'd, that he had slept pretty well the last Night; that his Stomach was somewhat better; that his Thirst was less, that his Pains were much more abated, and in a Manner gone; and that he had seven or eight Stools since the last Evening. His URINE was become *clear*, and not much higher colour'd than Canary. He complain'd of being *very sore*, especially in his *Groins*. He was very desirous of drinking some Ale, and had been accustomed to a great deal. I gave him Leave therefore to take a Draught of it some times; but order'd that a red *hot Iron* should first be quenched in it; and then prescribed for him as follows.

Pergat in usu BOLI hesterno die præscripti, & horis octavis ad tres alias vices fumat unum, & persistat in usu JULAPII (cum Pulv. è Chel. Cancr, &c.) præscripti, ut antea,

℞ Rad. Enulæ camp. Lign. Guajac. ras. ana ℥ii. Fol. Malvæ M. ii. Sem. Anis. ℥ii. Coq. cum Aq. fontan. q. s. ad lbiiij. Dein Liquori colato adde Sp. Vini. rect. lbi. M. f. FORUS, cum Stuphis laneis partibus affectis calidè applicandus.

§. 473. *December 28.* about Eight of the Clock in the Evening, I visited him, and found him much better, and was told that his

his *Pains* and *Soreness* were gone; that he could turn and lift up himself in Bed; that he rose, and did sit up several Hours in the Day, and bore it very well; that he could stand on his Feet, and walk a little; that his Appetite was better, that he had eaten Toast and Butter, and Mutton Broth, &c. which agreed well with him; but his URINE was *red* and *thick* again, tho' not near to the Degree in which I first saw it. I prescribed for him the following Mixture.

℞ *Lapid. Contrayerv. Antimon. diaphor. ana* ℥i. *Sal. Absinth. Coccinell. ana* ℥ii. *Croci* ℥ss. *Aq. Lactis alex.* ℥iiss. *Aq. Bryon. comp.* ℥i. *Aq. Cinnam. fort* ℥ss. *Sacchar. albiss. q. s. ad saporem gratum, & f. MISTURA attenuans, de qua capiat Cochli. i. horis quartis vel tertiis, si opus fuerit, Phialâ prius agitatâ; & superbibendo Haustum Infusi Herb. Melissæ, vel Aq. fontan. cum pauxillo Sp. Vini Gallic.*

§. 474. *December 29.* he had several Stools this Day, otherwise continued mending.

§. 475. *December 30.* he had some Return of Pain about his *right Knee*, which was swelled. His Urine was neither so high colour'd, nor so thick as on *Dec. 28*; he had no Stool this Day; his other Symptoms good. I prescribed for him as follows.

℞ *SA.*

℞ *Sp. Sal. vol. oleos.* ℥ii. *cujus capiat gut 30. subindè in*
Hauft. Pseudo-Thex cum Herb. Trifol. Paludos, vel cum
Flor. Chamæm. pptæ.

§. 476. *December 31.* This Day he had much PAIN in his *Back, Arms, Wrists, Knees, and Legs*; his Wrists and both Knees were swelled. His Pulse was regular, the Heat of his Body temperate, except the Parts swelled, which were hot. His Urine was of a Canary Colour, and clear. I prescribed for him as follows.

℞ *Æthiop. Mineral.* ℥i. *Sal. Prunell. gr. v.* *Conserw. Ab-*
stath. rom. ℥ii. *Syr. Bac. Sambuc. q. s.* *M. f. BOLUS*
immediatè sumendus, & horis quatuor interpositis, bibat
Cochl. iii. Mistura sequentis. & post horas iii. alia Cochl.
iii. ejusdem.

℞ *Sal. Succini vol. gr. iv.* *Tinct. Sacra* ℥iiss. *Syr. de*
Spina Cervin. ℥iiss. & f. MISTURA purgans.

§. 477. *January 1. 1731-2.* I visited him, and was told, that about Eleven o'Clock in the Forenoon, the Day before, he took the *Bolus*, and about Two o'Clock in the Afternoon the first three Spoonfuls of the *purging Mixture*, and three Spoonfuls more about Five o'Clock, which gave him two Stools; and that in an Hour after he had taken the first three Spoonfuls of it, he fell
into

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into a breathing, moderate Sweat till about Nine o'Clock this Day ; and that all his Pains were gone, but left a *Soreness* in the Parts affected. His Urine was of a good Colour, and other Symptoms favourable. I prescribed for him the following Medicine.

℞ *Æthiop. Mineral.* ʒss. *Rad. Serpentar. virg.* ʒi. *Sal. Martis* ʒss. *Sal. Prunell.* ʒii. *Conserv. Absinth. rom.* ʒvi. *Syr. Bac. Sambuc.* q. s. *M. f. ELECTUARIUM,* cujus capiat quantitatem Nucis Moscatæ horis octavis vel sextis, superbibendo Haustum Liquoris cujuslibet.

§. 468. *January 4.* he had at Times some feeling of Pain in the Parts before affected : I therefore prescribed for him as follows.

℞ *Cinnab. Nativ.* *Rad. Serpentar. virg.* *Flor. Chamæ. ana* gr. v. *Flor. Sulphur.* ʒss. *Lapid. Contrayerv.* gr. v. *Syr. Balsamic.* q. s. *M. f. BOLUS vesperi & crastino mane sumendus.*

§. 479. *January 5.* he had taken *Cold*, and had some *febrile Symptoms* ; on which Occasion I prescribed the following Medicines, in the Use of which he soon became free from them, as well as from his Pains.

℞ *Antimon. diaphor.* *Flor. Sulphur. ana* ʒss. *Sal. Nitri,* *Coccinell. ana* ʒi. *Myrrh.* ʒss. *Camphor.* gr. iv. *M. f.*
PULVIS

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PULVIS in Partes iv. æquales dividendus, quarum capiat unam omni Quadrihorio cum Cochl. i. *Misturæ* sequentis mistam, superbibendo Haustum Psendo-Theæ cum Salvîa pptæ.

℞ Aq. Lactis alex. Aq. Bryon. comp. ana ℥ss. Syr. Balsamic. ℥i. & f. MISTURA.

HISTORY XLIV.

§. 480. May 11. 1735. in the Morning I was sent for, and visited Mr. C— M—, a young Man aged about 20 Years. I found him grievously afflicted with *Rhenmatick Pains* and a *symptomatick Fever*. I was informed that he was first taken with PAINS *cross his Shoulders*; then down his *Back* and into his *Groin*. He had also PAINS in his *Shoulders, Hands, Knees, Legs* and *Feet*. These Pains he had some Days before any Symptoms of a Fever were perceived; but *Wednesday* the 7th of this Month he was taken more violently, and febrile Symptoms came on. He had been *blooded* before I saw him, and his Blood was exceeding fizy; he had likewise been *vomited*, and I think *purged*; but still grew worse.

§. 481.

§. 481. When I first visited him, his PAINS were chiefly in his *Knees*, which were somewhat *swelled*, felt very hot, but were not discoloured: He could *neither stand nor move his Legs*. He had been restless, and not able to sleep for his Pains. He was *thirsty*, his Flesh was *hot*, and his Pulse *quick*. I ordered him to drink plentifully of diluting Liquors, and prescribed for him the following Medicines.

℞ Rad. Serpentar. virg. Antimon. diaphor. Coccinell. ana gr. v. Sal. Succini vol. gr. iii. Camphor. gr. ii. Syr. Bac. Sambuc. q. s. M. f. BOLUS inaurandus, & sextâ quâque horâ ad iv. vices sumendus, superbibendo Cochl. iv. Julapii sequentis.

℞ Aq. Lactis alex. ℥vii. Aq. Bryon. c. ℥vi. Sp. Lavendul. c. ℥ii. Sp. Nitri dulc. gut. 40. Sacchar. alb. q. s. ad saporem gratum. M. f. JULAPIUM.

℞ Sp. Vini camphorat. Sp. Lavendul. c. ana ℥i. Aceti Vini alb. ℥vi. M. f. FORUS, quo Partes affectæ tepidè foveantur.

§. 482. In the Evening I visited him again; he had taken three of the *Boluses*; his Symptoms were much the same as in the Morning. I prescribed the following Draughts, and order'd that he should take the first of them six Hours after he had taken the fourth Bolus.

℞ Lapid.

℞ *Lapid. Contrayerv. Antimon. diaphor. ana* ℥ss. *Coc-*
cinell. gr. v. Sal. Absinth. gr. xii. Aq. Menth. ℥iiss.
Aq. Bryon. c. Syr. Balsamic. ana ℥ii. *Sp. Nitri dulc.*
gut. x. M. f. HAUSTUS, horis sextis ad ii. vices bi-
bendus.

§. 483. *May 12. in the Morning, I visited*
him again, and found him much in the
same State, only that he had sweated a
pretty deal. I prescribed for him as fol-
lows.

℞ *Antimon. diaphor. ℥ss. Sal. Absinth. Sal. Prunell. ana*
gr. v. Aq. Lactis alex. ℥iiss. Aq. Menth. ℥iiss. Sp. Ni-
tri dulc. gut. x. Sacchar. alb. q. s. ad saporem gratum.
M. f. HAUSTUS horis quartis ad ii. vices bibendus.

℞ *Sp. Nitri dulc. ℥iiij. Tinct. Croci ℥i. & f. MISTURA,*
cujus cap. gut. xx. in Haust. Infus. Salviæ nobilis, vel
Decoct. C. C. Ras. subindè fiti urgente.

EMPLASTRA *Epispastica Brachiis internis infra cubitos ap-*
plicentur.

§. 484. *In the Evening I visited him*
again, and found a Remission of his Pains
and febrile Symptoms. I prescribed for him
as follows.

℞ *Rad. Serpentar. virg. Flor. Sulphur. Coccinel. ana*
gr. v. Diascordii sine melle ℥i. Syr. Bac. Sambuc. q. s.
M. f. BOLUS inaurandus, & horis octavis ad ii. vices
sumendus, superbibendo Haustum Pseudo-Theæ cum Sal-
viâ nobili pptæ.

℞ *Aq. Lactis alex. ℥iiss. Aq. Bryon, c. ℥i. Sp. Lavendul.*
T c. ℥ii.

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c. 3ii. *Tinct. Croci, Syr. Balsamic. ana 3i. M.f. JVLAPIUM cardiacum, cujus cap. Coch. i. largum in Lan-*
quoribus.

§. 485. *May 13.* in the Forenoon, I visited him, and found his *Knees* and *Legs* much better, but the *PAINS* in his *Shoulders* were increased, and he could not move either his *Hands*, or *Arms*. His *THIRST* was *increased*, and he had been without a Stool for some Days. I therefore order'd a Glyster to be made with *Water Gruel*, (in which Aniseeds had been boil'd) *Butter*, *Sugar*, and *Salt*, and given him, and then prescribed for him as follows.

℞ *Sal. Nitri 3fs. Flor. Sulphur. Coccinell. ana gr. xv. M.f. PULVIS* in Partes iii. æquales dividendus, quarum capiat unam horis quartis cum Coch. i. *Mistura* sequentis mistam, superbibendo Haustum Liqueoris cujuslibet.

℞ *Aq. Lactis alex. 3i. Aq. Menth. Syr. Balsamic. ana 3fs. & f. MISTURA* pro Pulv.

℞ *Sp. Vitriol. 3i. Aq. Cinnam. fort. 3iij. & f. MISTURA*, de qua capiat in Haustu. Liqueoris cujuslibet tot Guttas quot sufficiant ad moderatam aciditatem, subindè siti urgente.

§. 486. In the Evening I visited him again, and found his Fever and Pains abated, and was informed that the *Glyster* had been given,

given, and produced a Stool. I therefore only order'd the *Powders*, and the *Mixture* for them prescribed in the Morning, to be repeated, and taken as the former.

§. 487. *May 14.* I visited him, and found him in a *Sweat*; and was inform'd that he had sweated much all the Night, and had slept between Whiles pretty well. His Pains were more moderate, and his Fever abated. I prescribed for him as follows.

℞ *Antimon. diaphoret. Sal. Nitri. Flor. Sulphur. ana gr. vii. Coccinell. gr. iv. M. f. PULVIS* pro Dos. i. horis quartis, cum Cochl. i. *Misturæ* heri præscriptæ mista, sumenda; superbibendo Haustum Liquoris cujuslibet.

§. 488. *May 15.* I visited him again, and found him abundantly better, his Pains much abated, and his Fever almost gone. Therefore I prescribed the following *Powders* for him, and took my Leave, desiring, if there should be any further Occasion for my Advice, that they would send to me.

℞ *Sal. Nitri, Flor. Sulphur. Antimon. diaphoret. ana ℥i. Coccinell. gr. xv. Ol. Junip. chym. gut. ii. M. f. PULVIS* in Partes iii. æquales dividendus, quarum capiat unam cum Cochl. i. *Misturæ* seq. mistam, horis quartis, vel sextis, vel octavis, vel bis in die, ut opus fuerit.

℞ *Aq. Menthae, Aq. Pulegii, ana ʒss. Syr. Bac. Sambucc.*
 ʒi. & f. MISTURA pro Pulv.

§. 489. I was afterwards inform'd that he went on with the Use of these *Powders* (§. 473.) for some Days, and of the *Foment*, and that he continued recovering his Health; and I have been lately told, that had no Relapse; but has enjoy'd his Health very well ever since.

HISTORY XLV.

§. 490. *May 23. 1736.* having been sent for, I visited Mr. M——w, a young Gentleman, aged about twenty-six Years. He complain'd of *violent Pains* in his *Knees*, and *Ankles*, which were pretty much *swelled*. He could *neither walk, nor stand, nor set a Foot to the Ground, nor move his Legs*. He had also violent *Pains* in both his *Shoulders*; he had not been able to get any Sleep for several Nights, by Reason of his Pains, but lay roaring under extreme Agonies. He was become *thirsty*, and his Pulse *quick*, but his Flesh not burning hot. I prescribed for him as follows.

℞ *Rad. Serpentar. virg. Sal. Succini vol. ana gr. v. Camphor.*

phor. gr. ii. Eleæ. Mithridatii ʒss. Syr. Caryophyll. q. f. M. f. BOLUS inaurandus, & horis sextis fumendus, tepidè superbibendo Haustum feri Lactis cum Vino Mont. ppti.

ʒ *Sp. Nitri dulc. ʒss. cujus cap. gut. xx. subindè in Haust. Decocti C. C. Raf. vel Aquæ Hordei, vel Pseudo-Theæ cum Sem. Urticæ vulg. pptæ. & cum Sacchar. alb. parum edulcatæ.*

§. 491. *May 24.* I visited him again, was told that he had taken three *Boluses*, that his Pains were much abated, and he had got Sleep. I order'd him to continue the Use of the *Bolus*, &c. as before.

§. 492. *May 25.* he omitted taking his *Bolus*.

§. 493. *May 26.* his Pains increased again, which prevailed with him to take his *Bolus* as directed.

§. 494. *May 27.* I visited him again, and was informed that he had taken three *Boluses* more; that he had slept well the Night before; that the *Pains* and *Swellings* were gone from his *Knees*, *Ankles*, and *Shoulders*; but that he had some Pain in his *right Elbow*, which hinder'd his lifting his right Hand to his Head, and that he went to Stool pretty often. I prescribed the following *Bolus*, in the Use of

which he very soon became free from his remaining Pains, and recovered his Health.

℞ *Rad. Serpentar. virg. Lapid. Contrayerv. Sal. Succini*
vol. ana gr. v. Camphor. gr. iii. Ele&. Mithridatii
3fs. Syr. Caryophyll. q. s. M f. Bolus inaurandus,
& horis sextis fumendus, superbibendo Haustum feri
Lactis cum Vino Mont. ppti,



C H A P. XIX.

*Containing an Account of the Gout,
as to its Causes, and curative In-
dications, with Histories of Pains
in the Hips, Knees, and Feet.*

§. 495. 3. **T**HE next Subject of our Consideration is the GOUT ; by which I mean those PAINS which affect the *Joints*, when the *morbid Humour* is excreted at the Extremities of the Bones ; as in *rheumatick* Pains it is commonly excreted near the Extremities of them, about those Parts of them, where the Tendons of the Muscles are inserted, as I apprehend.

§. 496. These Pains (§. 495.) are variously denominated from the different Parts in which they happen to be seated. *E.g.*

1. CHIRAGRA, when in the *Hands*, or *Wrists*.
2. ISCHIAS, or SCIATICA, when in the *Hip*.
3. GONEGRA, when in the *Knees*. And,
4. PODAGRA, when in the *Feet*, or *Toes*.

§. 497. The Nature of the Gouty Humour has already been described, (§. 233, 234,) and the Description proved to be true. *Vid.* §. 234.

§. 498. The constituent Parts of it are PARTICLES of *alkaline Salts, Air, Oil,* and a little *Earth*. The constituent Parts of the human *Calculus* are much the same.

§. 499. These PARTICLES, (§. 498.) which sometimes produce the *Stone* and *Gout*, do always exist in all human Bodies, tho' commonly more in those that are elder, than in the younger : But in a Time of perfect Health they are not, and ought not to be thought *morbid* ; because while they are in a due State and Quantity, they subserve some important Uses in the animal Oeconomy ; and while Persons remain in a State of perfect Health, such Particles (§. 498.) are continually passing out of the Body in sufficient Quantity by the natural Ways of Excretion.

§. 500. When, indeed, by any Occasion, there happens a Defect in the Force of the Action of the Heart and Arteries, then those *alkaline Salts, &c.* (§. 498.) will not be sufficiently comminuted ; and consequently will not be sufficiently evacuated out of the Body ;

Body ; which Event lays a Foundation for the Gout, and administers Matter for the Formation and Increase of the *Stone*.

§. 501. There is another and a very common Way of laying a Foundation for these terrible Distempers ; that is, *LIVING much on animal Food, which abounds with alkaline Salts ; DRINKING much Wine, the Tartar of which may be transmuted into Salts of an alkaline Quality by Means of its Mixture with the secreted Humours it meets with in the human Body ; and the NEGLECTING of Exercise, or bodily Labours.*

§. 502. These three Things (§. 501.) may be reckon'd the most frequent *antecedent* Causes of the *gouty Humour* in the Blood, no less than of the *Stone* in the Kidneys, or Bladder.

§. 503. But that we may form a right Notion of the Manner in which *arthritick Pains* are produced, we must consider, 1. That the *gouty Humour*, or the Particles which compose it, are brought down with the arterial Blood to the Joint affected. 2. That, about the Endings of those capillary sanguine Arteries, Part of the *gouty Particles* are impell'd into lymphatick Arteries ; and
very

very likely a great Part of them passes on-wards with the Blood into the sanguine Veins, and proceeds with it in its Circulation.

§. 504. I may now observe, that the Effect of the gouty Humour's being secreted by the lymphatick Arteries at the Extremities of the Bones in the Joint affected, may be, either,

1. Such a *Distention* of those lymphatick Vessels, as by compressing the Extremities of the adjacent Nerves, may excite Pain. Or rather,

2. The *Protrusion* of some of the *acrid, gouty* Particles (by means of the continued Accession of more of the like Quality, thrusting onwards the former) to an *immediate Contact* with the Extremities of the Nerves affected; the Consequence of which is exquisite Pain.

§. 505. The GOUTY PAIN, when it becomes violent, occasions a quicker Flow of Blood thro' the sanguine Arteries in the Part affected; and consequently too large a Secretion of Lymph into the lymphatick Arteries, which go off from them; and hence it is that the Part pained comes to swell.

§. 506.

§. 506. From what has been observed concerning the Nature of the gouty Humour (§. 498, &c.) we may infer, that the *Blood* and *Lymph* of Persons afflicted with arthritick Pains, have an *alkaline Acrimony*.

§. 507. I may add, that commonly there is likewise some Degree of *Viscosity* in the Blood of *gouty* Persons; because there commonly is some Deficiency in the Force of the Action of their Solids, as appears from the insufficient Excretion of *alkaline Salts*, which preceeded the Fit of the Gout, and without which it could not have happen'd: One natural Consequence of Defect in the Force of the Heart and Arteries, being a *Glewyness* or *viscid* Quality in the Blood,

§. 508. The *curative* Indications in painful Distempers of this Kind are,

1. By suitable internal Medicines to correct the morbid Qualities of the animal Fluids; that is, to destroy their *Acrimony* and *Viscosity*.

2. To strengthen the Action of the Solids; that is, chiefly of the Heart and Arteries; that by this Means the *gouty Particles* may be comminuted and render'd capable

pable of passing off thro' the perspiratory, and other excretory Ducts; and that those gouty Particles, which have been brought to the painful Joint, may be dislodged and propel'd from their Contact with, or Pressure against the Extremities of the Nerves affected; which may be expected, when the Force of the Motion of the circulating Fluids is increased, and their Acrimony and Viscidity are abated. And,

3. By *external Remedies*, to attenuate the gouty Humour excreted in the Part affected, abate its *Stimulus* on the Nerves, and promote its Discharge *ad extra*.

§. 509. Internal Medicines proper to answer the *two first* curative Indications, §. 508. may be seen in Hist. XXVII, XXVIII, XLVI, XLVII, XLVIII.

§. 510. And as to the *third* Indication, §. 508, it appears to me very rational and proper to make use of some *outward* Applications; because by Means of the *Vasa inhalantia*, (which terminate in every Part of the Superficies of the Body) and of the Pores, which are in every Membrane, and in the Coats of every Vessel of the Body, some subtile Parts of suitable *Fomentations*

or

or *Liniments* may enter and pervade to the Nerves, and other Vessels affected, and contribute to abate the painful *Stimulus*, the *Acrimony*, and *Viscidities* of the Fluids, and to the Evacuation of the gouty Humour *ad extra*.

§. 511. Indeed the outward Application of such Medicines as will close the Pores, constrict the Vessels, thicken the Fluids, or repel inwards into the sanguine and lymphatick Veins the morbid Humours discharged on the affected Joint, is not only improper, but very hazardous to the Patient, and may destroy Life; but it must not thence be inferr'd, that no outward Application is proper or safe, or can be useful in such Cases. Is it a reasonable Conclusion, that because some Things taken internally will poison and kill, that therefore no Medicines are safe, or can contribute to the Cure of Diseases? The Argument seems as strong against all internal Remedies, as against outward Applications.

§. 512. I can say nothing from my own Experience of the Success of outward Applications in a regular Fit of the Gout either in the Hand or Foot; but I can attest the
Safety

Safety and Usefulness of them in painful Distempers of the *Hips, Knees and Feet*; which will appear from Hist. XLVI, XLVII, XLVIII, XLIX, L, LI.

§. 513. There is the greatest PROBABILITY that by a due Regulation of *Diet and Exercise*, and the Use of proper *Remedies*, Remedies perfectly safe, Persons afflicted with the GOUT, may with the divine Blessing, have their Fits of it shorten'd, and the Returns of them in Time prevented. For since the Discovery of the Nature of the *gouty Humour* by the EXPERIMENTS of *Sign. M. Pinnelli*, the GOUT ceases to be that *mysterious DISEASE* it was before; and I hope it will no longer be the *Opprobrium medicorum*. Rational Methods of curing it, are easily deducible from the *now known Causes* of it; and those Disorders in the animal Oeconomy, by which this Distemper subsists, are removeable; not indeed by weakening Evacuations; not by repeated Bleedings, and frequent Purgings; but by suitable Diet and Medicines, which alter the morbid Qualities of the Blood, and at the same Time mend the Appetite, increase the vital Strength, attenuate the Fluids, and promote

a sufficient Discharge of morbid and superfluous Humours by insensible Perspiration; and it is a Pity that any, by leaving Nature to herself, destitute of Assistance, should cherish their Pains and Misery, and deprive themselves of that Ease and Health, which are obtainable.

§. 514. It may be of some Use to enquire how it comes to pass, that *Fits* of the Gout do so frequently return to Persons in the *Spring* and *Fall* of the Year.

§. 515. That we may form right Notions of this Matter, we must remember, that Persons afflicted with the Gout, have the *Gouty Humour* always existing in their Blood, (*vid.* §. 499.) both in the *Winter* and *Summer*, as well as in the other Seasons of the Year; and that Particles of the gouty Humour are continually passing out of their Bodies by the perspiratory, and other excretory Ducts: And we must not forget, that while the Action of the Heart and Arteries is strong enough sufficiently to comminute the various Parts of the Blood, and to maintain the Discharge by *insensible Perspiration*, and the other natural Evacuati-

ons

ons in due Quantities, so long they remain free from this Disease.

§. 516. Therefore when a Fit of the Gout happens in the SPRING of the Year, we may conclude that there has been some *Deficiency* in the animal Oeconomy, either in fitting the excrementitious and superfluous Parts of the animal Fluids for Excretion, or in the excretory Vessels.

§. 517. In the Winter the Blood is more condensed, and thicker than in warmer Seasons; the Diameter of all the Vessels in the exterior Superficies of the Body is less, and proportionally less is the Quantity daily perspired: But early in the *Spring*, when the Sun is returning to us again, when the Temperature of the Air is changed from its brumal State; when the Circulation of the Sap in Vegetables is quickned, and Plants begin to shoot out their Leaves, and grow, the Blood in human Bodies (in a Manner somewhat similar) is likewise rarified, the Action of the Heart and Arteries made stronger, and many of the excrementitious and superfluous Parts of the animal Fluids, which used in the Winter to pass off with the Urine, by the stronger Action of the
vital

vital Organs, are made small enough for Perspiration, and would pass out of the Body that Way, if the Diameter of the perspiratory Ducts and Pores were enlarged to the Summer Standard ; that is, to its common Size in Summer. But, as the natural *Conatus* of every Vessel, and muscular Fibre is to contract themselves, and as the Winters Cold constringed the subcutaneous Vessels, and render'd their lesser Diameter a Sort of Habit or fixed Tone ; and as this Tone can only (in the animal Oeconomy) be alter'd, and the Diameter of those Vessels enlarged to the Summer Habit by the daily stronger Impulse of the flowing Blood for a sufficient Time ; So it sometimes happens, that Part of the *gouty Humour* upon the *vernal* Rarefaction of the Blood, not finding Vent or Passage thro' the perspiratory Ducts, is carried to some Joint, and there constitutes a Fit of the Gout.

§. 518. In AUTUMN the Change in the Temperature of the Air (which then becoming much *colder*) often lessens the Diameter of the Pores, constringes the perspiratory, and all other Vessels in the outer *Superficies* of the Body ; and consequently *diminishes* the

U

Evacuation

Evacuation by insensible Perspiration ; that is, it does so where the Action of the Heart and Arteries is not strong enough to overcome the Impression of the cold autumnal Air: Whence it sometimes happens, that some of the gouty Humours, which used in the Summer-Season to pass out of the Body by insensible Perspiration, being hinder'd from so doing, are accumulated in the Blood, and some of them protruded to a Joint in one or other of the Limbs, and there form a Fit of the Gout. Thus I apprehend the Gout is occasion'd in the Fall of the Year.

§. 519. From what has been said, (§. 515, *ad* 518.) we may pretty easily understand not only that there are Methods and Remedies proper for preventing the Returns of the Gout, but also what those Methods and Remedies are.

§. 520. I shall now relate some *arthritic* Cases, and with them conclude this Chapter.

HISTORY

HISTORY XLVI.

§. 521. *April 25. 1737.* being sent for, I visited Mrs. — S — — D, aged about 38 Years, and found her under violent *histerick Fits*; and was inform'd that she had been afflicted with them several Days; and that for several Weeks she had *lost her Voice*, and could only speak in a very low, *whispering Manner*. I was likewise acquainted, that for some Mouths she had much *Pain in her left Hip*, and a *Lameness* of that Limb occasion'd by it; and that the Loss of her Voice happen'd immediately upon going away of the Pain and Lameness from her *Hip*.

§. 522. The FIRST THING to be endeavour'd for this Patient, was to free her from the *histerick Fits*. To this End I order'd her *Temples, Forehead, and Nostrils* to be immediately fomented with a Mixture of *Vinegar and Water* cold; and prescribed the following Medicines.

℞ Pulv. e Chel. Cancr. simpl. Lapid. Contrayerw. ana ℥ss.
 Sal. Succini vol. gr. iij. Sal. Prunell. gr. vii. Aq. Lactis
 alex. ℥i. Aq. Menth. ℥ss. Aq. Bryon. comp. Syr. Bal-
 samic. ana ℥ii. Sp. Vini Camphorat. Sp. Nitri dulc.

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ana gut. x. M. f. HAUSTUS sextâ quâque horâ ad iv. vices bibendus.

℞ *Sp. Nitri dulc. Tinct. Affasætid. ana* ʒi. & f. MISTURA, cujus cap. gut. 20. vel 30. in Hauſt. Aquæ puræ cum Sacchar. albo parum edulcatæ, ſubindè, ut opus fuerit, contra affectiones histericas.

§. 523. *April 26.* I viſited her, and found her free from her *histerick Fits*; but to prevent the Return of them, I order'd the Draught to be repeated, and the Uſe of it, as before, continued till the next Day.

§. 524. *April 27.* when I viſited her, I found ſhe remain'd free from her *histerick Disorders*, and therefore thought it proper to endeavour the *Recovery of her Voice*: To this End I preſcribed as follows.

℞ *Gum. Ammoniac. ʒii. Sal. Prunell. ʒi. Diſſolv. in Aq. puræ ʒii. Dein adde Aceti acerrimi, Syr. de Althæ. ana ʒi. M. f. GARGARISMUS*, cujus Coch. ſſ. frequenter pauliſper in ore teneatur, & dein expuatur.

℞ *Balsam. Capi-v. Sperm. Ceti, ana ʒi. Diſſolv. cum Vitell. Ovi q. ſ. Dein adde Syr. Balsamic. ʒi. Aq. Lactis alex. ʒiiſſ. & f. MISTURA*, cujus Coch. i. largum Veſperi & Mane.

§. 525. *April 29.* I viſited her again, and found that ſhe could ſpeak as well as ſhe uſed to do in any Time of Health. She acquainted

acquainted me that her *Voice* return'd the Night before, and that about the same Time the *Pain*, and *Lamenefs* return'd into her *left Hip*, and *Thigh*; that she remain'd free from histerical Disorders, and that her Pain became moderate, when she was hot in Bed.

§. 526. The THING now to be endeavour'd was to remove the *Pain*, and *Lamenefs* of her *Hip* and *Thigh*, in such a Manner as might prevent the Loss of her Voice, and the Return of her histerick Fits. I prescribed for this Purpose as follows.

℞ *Antimon. diaphor.* *Sperm. Ceti, ana* ℥ss. *Sal. Succini* vol. gr. iij. *Camphor. gr.* ii. *Mithridatii* ℥ss. *Ol. Junip. chym. gut.* iii. *Syr. e Cortic. Aurant. q. s.* M. f. *BOLUS* inaurandus, & horis octavis ad iv. vices sumendus, superbibendo *Cochl.* iv. *Julapii* sequentis.

℞ *Aq. Cinnam. tenuis* ℥iijss. *Aq. Pulegii* ℥iv. *Sp. Lavendul. comp.* ℥iij. *Sp. Nitri dulc. gut.* 40. *Sacchar. alb.* 3ss. M. f. JULAPIUM.

§. 527. *April* 30. I visited her again, and found that she retain'd her Voice, remain'd free from her histerick Disorders, and that the *Pain* of her *Hip* was somewhat *abated*. I prescribed as follows.

℞ *Antimon. diaphoret.* *Flor. Sulphur. ana* ℥ss. *Rad. Serp.*
U 3 *pentar.*

pentar. virg. gr. v. Sal. Succini vol. gr. iij. Camphor. gr. ii. Syr. Balsamic. q. s. M. f. BOLUS inaurandus, & octavâ quâque horâ ad octo vices sumendus, superbibendo Coch. iv. Julapii sequentis.

℞ *Ol. Junip. chym. gut. xii. Sacchar. alb. zii. optime miscantur; dein adde Aq. Pulegii ℥xi. Aq. Bryon. comp. zvi. Sp. Lavendul. comp. zii. M. f. JULAPIUM.*

§. 528. *May 3.* I visited her again. She remain'd free from histerick Disorders, retain'd her Voice, and the Pain of her *Hip* and Lameness were almost gone. I prescribed as follows.

Pergat in usu Boli & Julapii die Aprilis 30mo. præscript. & horis octavis ad vi. alias vices sumat Bolum, superbibendo Coch. iv. Jul. pii, & postea utatur Mistura sequente.

℞ *Ol. Junip. chym. gut. 30. Sp. Sal. Armoniac. ℥ss. & f. MISTURA, cujus cap. gut. xv. vel xx. Vesperi & Manè in Haust. Aq. puræ Bristol, Phialâ prius agitâtâ.*

§. 529. *May 5.* I visited her, and found her perfectly free from her *Pain* and *Lameness*; and she remain'd free from the histerick Fits, and retain'd her Voice.

§. 530. *May 10.* I call'd on her, and found she remain'd well, and therefore took my Leave of her.

§. 531. There are some Things remarkable

able in the Case of this Patient, *viz.* 1. That the Pain of her *Hip* abated as she grew hot in Bed; whence I inferr'd that it did not proceed from a *flatulent* Cause. 2. That the Loss of her Voice happen'd on the ceasing of the Pain in her *Hip*, and that the Pain of her *Hip* return'd upon the Recovery of her Voice: Whence I concluded, that those two Symptoms were produced by one and the *same Cause*, translated from the Joint of the *Hip* to the Organs of the Voice, and again from the Organs of the Voice to the Joint of the left *Hip*.

§. 532. This Cause (§. 531.) I apprehended to be an *acrimonious viscid Humour* in the Blood; but not in so great a Degree as to occasion Obstructions in any capillary sanguine Arteries; for then an *Inflammation* of the Part affected must have been a concomitant Symptom, which it was not; therefore it appear'd to me, that this morbid Humour was secreted into the lymphatick Arteries in the Part affected, and occasion'd a Distention of them, and so proved an Impediment to the Motion or Action of the Parts affected; and thus produced the Lameness when the Humour was in the *Hip*, and the

Loss of the Voice, when it was in the Organs of speaking.

§. 533. There is one Thing more observable, *viz.* that there was no Sense of Pain, when the morbid Humour was in the Organs of speaking, but only when it was in the Joint of the *Hip*: The Reason of which I take to be this, *viz.* that when the Humour was carried into the lymphatick Arteries in the Joint of the *Hip*, some of the acrid Particles were protruded to an immediate Contact with the Extremities of the Nerves there affected, and that it happen'd otherwise in the Organs of speaking.

§. 534. If any shall ask, how it came to pass that when the morbid Humour was removed from the Organs of speaking, it was translated to the Hip, and to the same Hip, and not to some other Part, I must own that I cannot account for it.

§. 535. I will only add, that since the acrid Particles in the Blood are all of an *alkaline* Nature; so we have Reason to think that the morbid Humour conveyed to the Hip-Joint in this Patient, consisted of the same Sorts of Parts which constitute the gouty Humour, §. 234.

HISTORY

HISTORY XLVII.

§. 536. *November 3. 1737.* being desired, I visited Mr. JAMES THWAIT, aged about 76 Years. He had for some Days been afflicted with extreme *Pain in his left Hip*, so that he could nor walk, nor be put to Bed, or got up from it, without exquisite Torment. His Flesh was too hot, and his Pulse too quick, and he could get no Sleep for his Pain. I prescribed for him the following Remedies.

℞ *Antimon. diaphor. Flor. Sulphur. Sal. Prunell. Coccinell. ana gr. v. Aq. Lactis alex. ℥i. Aq. Pæon. comp. ℥iij. Syr. Balsamic. Syr. de Mecon. ana ℥i. Elixir. Vitriol. Mynsitch. gut. xii. M. f. HAUSTUS horis sextis ad iii. vices bibendus.*

℞ *Ol. Oliivar. ℥ii. Ol. Absinth. chym. gut. viii. M. f. LINIMENTUM, quo Pars affecta, subindè tepidè inungatur per octavam horæ partem.*

§. 537. *November 4.* I visited him again, and found his Symptoms much the same as the Day before, except that his Pain was not altogether so intense. I prescribed for him as follows.

℞ *Antimon. diaphor. gr. vii. Flor. Sulphur. gr. viii. Coccinell. gr. v. Aq. Pulegii ℥i. Aq. Pæon. comp. ℥iij. Syr.*

Syr. Balsamic. ℥ii. *Sp. Nitri dulc. gut.* x. *M. f.* HAUSTUS sextâ quâque horâ ad iv. vices bibendus,

§. 538. *Nov.* 5. I visited him again, and found his Pulse slower, and Heat much abated: He had slept between Whiles, could move a little better, and had Remissions of his Pain, tho' sometimes they were strong. I prescribed for him as follows.

℞ *Antimon. diaphor.* *Rad. Serpentar. virg.* *Gum. Quajac. ana* gr. v. *Camphor.* gr. ii. *Elect. Mithridatii* ℥i. *Syr. Balsamic.* q. f. *M. f.* BOLUS inaurandus, & horis sextis ad iv. vices sumendus, tepidè superbibendo Haustum feri Lactis cum Vino Mont. ppti.

℞ *Camphoræ* ℥i. *Ol. Succini* ℥ss. *M. f.* LINIMENTUM, quo Pars affecta manu tepidâ bene inungatur.

§. 539. *Nov.* 6. I visited him again, and found him much better; but he had at Times some Returns of his Pain; I therefore prescribed the following Medicine, which, with the Blessing of God, was effectual to perfect his Recovery; and some Months after he told me, he thought himself stronger, and could walk better than before he had his Pain.

℞ *Antimon. diaphoret.* gr. v. *Lapid. Contrayerv.* ℥ss. *Coccinell.* gr. iij. *Camphor.* gr. ii. *Elect. Mithridatii* ℥i. *Syr. Balsamic.* q. f. *M. f.* BOLUS inaurandus, & sextâ

sextâ quâque horâ ad iv. vices sumendus, tepidè super-
bibendo Hauſtum feri Lactis cum Vino Mont. ppti.

540. The Humour ſecreted in the Joint of the Hip of this Patient, I apprehend, conſiſted of the ſame Sorts of Particles, which compoſe the *gouty* Humour.

HISTORY XLVIII.

§. 540. *Friday, Dec. 9. 1737.* I was ſent for to Mr. — T — — R, aged near 50 Years. He complain'd of great *Pain* in his *right Hip* of ſix Months Continuance. He had uſed the *hot Bath* at BATH, and the *cold Bath* here in Town; had been blooded in his Arm, and cupp'd for it; and for ſix Weeks together took a *Bolus* made of *Gua-jac.* ℞s. *Cinnab. Antimon. gr. xv, &c.* and ſometimes was purged with a *Bolus* made of *Calomel.* ℞s. *Falep. ʒi. &c.* He had uſed a Decoction of the *Woods*, and a Diet Drink to alter his Blood, and had been *blister'd* on the Part affected; but notwithſtanding all theſe Remedies, (which have been often uſeful in ſuch Caſes) he ſtill grew worſe, which occaſion'd his ſending for me. I preſcribed for him as follows.

By *Antimon.*

℞ *Antimon. diaphor. Flor. Sulphur. ana* ℥ss. *Sal. Succini vol. Camphor. ana* gr. ii. *Elect. Mithridatii* ℥i. *Ol. Junip. cbym. gut. ii. Syr. de Althæ. q. f. M. f.* *BOLUS* inaurandus, & sextâ quâque horâ fumendus, tepidè superbibendo *Hauftum* seri *Lactis cum Vino Montan. ppti.*

℞ *Camphor. ℥i. Ol. Olivæ. ʒi. Ol. Anif. gut. iv. M. f.* *LINIMENTUM*, quo *Pars affecta* tepidè per horæ quadrantem inungatur bis in die.

§. 542. *Dec. 10.* I visited him again, and found his Pain was pretty much abated : I therefore prescribed for him as follows.

Pergat in usu Boli hesterno die præscripti, & sextâ quâque horâ ad octo alias vices capiat unum.

℞ *Elixir. Vitriol. Mynsitch. Sp. Lævendul. comp. ana* ʒii. *℥ f. MISTURA*, cujus capiat guttas 30. semel vel bis in die, in *Hauftu Aquæ & Vini.*

§. 543. *Dec. 12.* I found him considerably better, and therefore I prescribed as follows.

Pergat in usu Boli die *Dec. 9no.* præscripti, et sextis horis ad octo alias vices sumat unum.

§. 544. *Dec. 14.* I visited him again, and found that he could walk much better, and his Pains almost gone : I prescribed as follows.

℞ *Rad. Serpentar. virg. gr. vii. Antimon. diaphor. Flor. Sulphur.*

HIST. XLVIII. *Pain in the right Hip.* 301

Sulphur. ana ℥ss. *Sal. Succini* vol. gr. iij. *Campbor.*
gr. ii. *Mithridatii* ℥ss. *Ol. Junip. chym. gut.* iii. *Syr.*
de Albæ. q. s. *M. f.* Bolus inaurandus, & Vesperi &
Mane ad vi. vices sumendus, tepidè superbibendo Hau-
stum feri Lactis cum Vino Mont. præparati.

Pergat in usu *Linimenti* die Dec. 9no. præscripti.

§. 545. *Dec.* 17. I visited him again, found him easy, and therefore order'd the following Bottle of Drops for him, and took my Leave.

℞ *Ol. Junip. chym. gut.* 40. *Sp. Sal. Armoniac.* ℥ss. & f.
MISTURA, de qua capiat gut. xx. Vesperi & Manè in
Hauft. Aq. & Vini, vel feri Lactis cum Vino Mont.
præparati.

§. 546. The constituent Parts of the morbid Humour in this Patient, I apprehend to be much the same with those in the two foregoing *Histories*, only in this there seems to have been more of the acrid Particles extravasated, and cast out of the Course of the circulating Fluids, and thrust to an immediate Contact with the Extremities of the Nerves affected, and was the Reason why his Pains were so durable, and removed with so much Difficulty.

HISTORY

HISTORY XLIX.

§. 547. *September 4, 1733.* Mr. NATHANIEL STYLE, aged about 33 Years, desired my Advice. He told me that, when he was about 19 Years of Age, he was taken with a general Disorder, a Sort of *convulsive Shakings*, which very frequently afflicted him near two Years together, and that from that Time he had been troubled from PAINS in his right KNEE, which always came when he was *sitting*, and then to his inward Feeling, it seemed, as if there were bulky *Swellings* upon it, tho' in Reality there were none; and when he endeavour'd to rise up from his Chair, he said it was with Difficulty, and that he was not able for some Time to set his Leg strait; but on his standing, the Pain went off, and then he was taken with a *Shivering*, and sometimes with a *Pain in his Side*.

§. 548. Thus he used to be afflicted five or six Times in a Day. In other Respects he was pretty well. I prescribed for him the following Remedies, which, with the Blessing of God, were effectual to remove his Complaints.

R. O.

℞ *Ol. Junip. chym.* ℥i. *Sp. Sal. Armoniac.* ℥ss. & *f.* MISTURA, cujus capiat gut. xx, bis in die in Hauſt. Decocti *Lign. Sassafr. Raf. Phialâ prius agitatâ.*

℞ *Sperm. Ceti* ʒi. *Camphor.* ℥i. *Ol. Amygdal. dulc.* *Ol. Succini, ana* ℥ss. *M. f.* LINIMENTUM, quo Partes affectæ Vesperi & Mane inungantur.

§. 549. There are divers Things remarkable in this Case, (§. 547.) *e.g.* 1. That the *Pains* came into his Knee only when he was sitting; that is, when the sanguine and lymphatick Vessels on the upper Part of that Joint, the Part affected, were most extended, and their Diameter most lessen'd, and the Passing of the Fluids through them most difficult.

§. 550. Hence (§. 549.) I apprehend arose the *Pain*, the *Stiffness* and seeming Tumour of the Joint..

§. 551. 2. That upon his changing the Posture of that Limb, and standing awhile, the Pain and Stiffness of the Joint went off; that is, when the Vessels affected were most relaxed, the Diameter of them largest, and the Passing of the Fluids thro' them most facile.

§. 552. 3. That upon the going off of the Pain, and Stiffness from his Knee, he was taken

taken with a *Shivering*, and sometimes with a *Pain in his Side*.

§. 553. From which Symptoms §. 549, 551. we may infer, that there was some Degree of *Viscidities* in the Fluids of this Patient; because if it was otherwise, if the Blood and Lymph had retain'd their healthy Tenuity or Thinness, they would have passed those Vessels in their extended State as in Time of Health, without occasioning either Stiffness or Pain. This is confirmed also by what is observed §. 551.

§. 554. From §. 552, it seems also reasonable to think that some of the antecedent Causes of this Distemper were *acrid Particles*, and Particles of *elastick Air* too abundant in his Blood. Therefore when the morbid Humour by Change of Posture moved from his Knee, they were carried in the Course of Circulation to the other Parts affected.

§. 555. This Distemper appears, in my Opinion, to have arisen from *complex Causes*.

HISTORY L.

§. 556. *June 20. 1738.* Mr. NATHANIEL STYLE, the same Gentleman mentioned §. 547,

§. 547, desired my Advice. He complain'd at this Time of a *moving Pain*, which had been very troublesome to him for several Weeks; sometimes it was in his *right Knee*, sometimes in his *left Hypochondre*; and when it went from one of those Parts, he soon felt it in the other; never in both Places together. He likewise complain'd of a *Want of Appetite*, and *Lowness of Spirits*. I prescribed for him the following Remedies, which soon relieved him, and proved so effectual, that I had no Occasion to prescribe a second Time.

℞ *Antimon. diaphor.* ʒi. *Castor. Russæ, Camphor. ana* ʒss. *Myrrb.* ʒii. *Ol. Junip. chym. gut.* 24. *M. f. PILULÆ N°* 48. *inaurandæ, quarum capiat iv. Vesperis & Mane.*

℞ *Elixir. Vitrioli Mynsitch.* ʒss. *cujus capiat gut. xv. vel xx. in Haust. Aq. Spadens. vel Aq. Bristol. horâ unâ antè Prandium, & horâ quintâ post Meridiem.*

℞ *Sp. Vini camphorat.* ʒss. *Sp. Lavendulæ comp. Aq. Hungaric. ana* ʒvi. *M. f. Forus, quo Partes affectæ subindè, ut opus fuerit, foveantur.*

§. 557. The Fomentation he found produced a Sort of glowing Warmth in the Part affected, when he used it, and thereupon his Pains ceased.

§. 558. October 12. 1738. Mr. Style was at my House; and talking over his old Complaints, he observed to me, that after eating, his *Stomach* seemed to swell, and became uneasy, and that then he should have such great *Flushings* in his Face, that any Body, not acquainted with him, might think he had been drinking hard; and frequently after eating, the Pain would come into his *Side*: He often took Notice, that on a free Evacuation of *Wind* his *Pains* have gone off; and that when he had the Wind much in his Stomach, it would, as he express'd it, fly up into his Head, and that then he should have the *Head-ach* to a violent Degree, as if he should be distracted, till he had Vent for the *Wind*, and then the *Pain of his Head* would abate, and go off.

§. 559. I may observe, as to this Patient, that the principal Cause of his Pains, and other Disorders, appears to be *too great* Quantities of *elastick* Air both in the Cavity of the Stomach, and Interstices of the Blood; and some of his Symptoms seem likewise to evince that there is sometimes a very quick passing of *Air* from the Stomach into

into the Blood, and from the Blood into the Stomach.

§. 560. The Pains in the Knee, which he now complain'd of, seem'd to me different from those which afflicted him in *September 1733*. These I call *flatulent*.

HISTORY LI.

§. 561. *April 26. 1733.* Mrs. M—r W—r, aged about 24 Years, a Servant then to Mrs. A—, desired my Advice. She said that for several Days she had been troubled with such violent PAINS in the *Bottoms of her Feet*, and such a *Pricking* in her *Ankles*, that she could not tell how to walk; that in other Respects she was well, and that her Feet and Ankles were not swelled at all. I prescribed the following Remedies, by which she soon became free from her Complaints.

℞ *Ol. Junip. chym. gut. xx. Sp. Sal. Armoniac. ʒss. & f. MISTURA, cujus cap. gut. xx. Vesperi & Mane in Haustu. Cerevisiæ, Phialâ prius agitâtâ.*

℞ *Sp. Vini rect. ʒi. Tinct. Succini, Tinct. Myrrb. ana ʒss. M. pro Fotu, quo Partes affectæ bis in die foveantur.*

§. 562. This Patient, by the Colouring of her Face, and by her Pulse, and some other Symptoms, appeared to me to have a *thick, heavy, and acrimonious* Blood. The Pains did not seem to be seated in any Articulation of the Bones, but to affect in general the Extremities of the Nerves of the Bottom Superficies of the Feet, and about her Ankles; occasion'd by *acrid Particles* brought to immediate *Contact* with the Extremities of the Nerves affected.

§. 563. I do not reckon this an *arthritick* Case; but I relate it as the History of a *painful Distemper* of the Feet.



CHAP. XX.

C H A P. XX.

Containing a Summary of the Theory of painful Distempers, with some Aphorisms deduced from the Histories, and the Conclusion.

§. 564. **I** Have in the foregoing Papers offer'd to the Consideration of the Publick, a THEORY of *painful Distempers*; a Theory not founded on any *Hypothesis*, but grounded on, and supported by the real State of Things in human Bodies afflicted with Pains. I shall now recapitulate some of the chief Parts of it, and then deduce a few APHORISMS from the Facts contained in the HISTORIES.

§. 565. I. As to the THEORY, (§. 564.) I have shew'd that *all Pain* is excited by the Action of some Matter on the Extremities of the Nerves by which we feel, (§. 15.) and that there are two general SORTS of *proximate* Causes of painful Sensations, *viz.*

1. *Too great Pressures* against the Extremities of the Nerves affected.

2. The *immediate Contact* of some (commonly) *acrid* Particles with the Extremities of the Nerves affected.

§. 566. As to the first Sort, §. 565. N^o 1. I have shew'd that the *internal Causes* productive of *too great Pressures* against the Extremities of the Nerves, are either, 1. *Viscid Humours* in the Blood, and Particles too bulky for an easy Circulation, (§. 17. N^o 1.) Or, 2. A *Constriction* of the Coats of some of the capillary sanguine *Arteries*, (§. *ibid.* N^o 2.) Or, 3. Some adjacent increasing Tumour, (§. *ibid.* N^o 3.) Or, 4. *Elastick Air*: (§. *ibid.* N^o 4.) But that the most frequent of these are *viscid Humours*, and *elastick Air*, §. 18.

§. 567. As to the second Kind of proximate Causes of Pain, §. 565. N^o 2. *viz.* the *immediate Contact* of some *acrid Particles* with the Extremities of the Nerves, (§. 19.) I have shewed, that such Particles are often excreted from the Blood to the *external Superficies* of the Body; (§. 20.) and that if they are too big to pass off thro' the Pores of the *Epidermis*, they are protruded to immediate Contact with the Extremities of the next adjacent Nerves terminating in that *Superficies*: (§. 21.) and that, in the same Manner,

Manner, *acrid Particles* may be brought to immediate Contact with the Extremities of the Nerves in any Part of, the *internal Superficies*: (§. 22.) And likewise, that if the covering Membrane of the Nerves happens to be corroded, and the Extremities of them made naked, *acrid Particles* in those Places may come to immediate Contact with them, (§. 23.) And also that *acrid Particles*, by striking thro' the common covering Membrane of the Nerves, may come to immediate Contact with their Extremities, (§. 28.) and excite Pain.

§. 568. From what has been observed, (§. 566, 567.) it appears, that as either *viscid Humours*, or *elastick Air*, or *acrid Particles*, are the most frequent *proximate Causes* of painful Distempers; so either a *viscid*, or *acrimonious*, or a *flatulent Quality* of the Blood, is the *antecedent Cause* of most of them.

§. 569. I may therefore observe, as a Point very evident, that the *curative Indications* require our Endeavours not only to remove the *proximate Causes*, but also to destroy that *morbid Quality* of the Blood, which was the Origin of the Distemper:

that is, to attenuate and dilute the Blood, when *viscid* Humours was the antecedent Cause: (§. 39.) To *absorb*, by proper Remedies, the redundant *elastick* Air as much as possible, and evacuate what of it cannot be absorbed, when the Disease is of the *flatulent* Kind, (§. 40.) and to prescribe those Medicines, which may destroy the *acrimoneous* Quality of the Blood, when the painful Disease is derived from it.

§. 570. Consequently in most painful Distempers of Bodies, where the Blood and Lymph do not exceed in Quantity, suitable *alterative Medicines* must be the proper Remedies, and both *Bleeding* and *Purging* must be not only needless, but generally improper, and often prejudicial, if generally used.

§. 571. I grant, that common RULES ought to allow some Cases as just Exceptions: Thus as to the Evacuation by *Bleeding*; if the *gouty* Humour seized the HEAD, and the Patient became *delirious*, I would advise Bleeding once, on Account of the *Revulsion* it makes, and the Benefit that may be procured by a Revulsion from the Head under such Symptoms; But if the *Gout* was in
any

any of the *Limbs*, or in the *Stomach*, or *Bowels*, I would not order Blood to be taken away, on the Account of the Revulsion this Evacuation produces; (it occasioning a Drain or Drawing back into the circulating Blood all the Humours capable of returning into it, both from the external and internal Superficies of the Body;) and of the Hazard, which attends the making a Revulsion in such Cases.

§. 572. There are some Things in the foregoing Parts of this TREATISE, which have been made evident, and which I think deserve Remembrance, *viz.*

1. That when the Part affected is inflamed, *viscid Humours* in the Blood, or a glutinous Quality of it was the *antecedent* Cause of the painful Distemper.

2. That if *no Inflammation* happens to the Part pained, the Disease most commonly results from *elastick Air*, or *acrid Particles*; except in *rheumatick* and *arthritick* Cases, which often arise from complex Causes.

3. That if the Pains result from *acrid Particles* excreted from the Blood, an acrimonious Quality of the Blood was the antecedent Cause of them.

4. That

4. That all the acrid Particles excreted from the Blood are of an *alkaline* Nature.

5. That an *acid Acrimony* may sometimes be predominant in the Contents of the Stomach, and Bowels, §. 239.

§. 573. II. I shall now deduce some APHORISMS from the *Histories*, which have been related, *viz.*

Aphor. 1. *That the painful Distempers, treated of in this Book, may happily be cured without Bleeding and lessening the Quantity of the vital Fluid.* Indeed I order'd Mr. CARTER, a young Gentleman under a violent *Palpitation of the Heart*, to be *blooded*, because I apprehended him to have a sanguine *Plethora*. He was lean, and full of *Blood*; and whenever the Quantity of *Blood* exceeds the Standard of Health, *Phlebotomy* should be advised, altho' no painful Disease afflicted the plethorick Person. This is the only Case of all the *Histories*, in which I order'd *Blood* to be taken away: The other Gentleman afflicted with the *Palpitation of the Heart* was not *blooded*.

§. 574. Aphor. 2. *That most of the common painful Distempers may likewise be cured without Purging; as is evident from*
the

the foregoing *Histories*; and my Reader may observe, 1. That the *purging* Medicines, which I order'd to be taken during the Continuance of the Pains, (*e.g.* Hist. I, II, V.) were directed in such Doses, as served only to keep the Belly open, and to prevent Costiveness. 2. That in the few Cases wherein I order'd a regular PURGE, it was after the Pains were gone. *Vid.* Hist. IX, XI, XII.

§. 575. In Hist. III. I order'd a Dose of *purging Pills* to be taken once a Week for the Sake of making a *Revulsion* from the Head. In Hist. XIV. I prescribed a *purging Potion* for the same Purpose. In Hist. XV. I prescribed Pills gently purging, to be taken six Days together, with Design to procure a *Stool* or two extraordinary those Days, and a *Revulsion* from the Head thereby: And in Hist. XXV, XXVI, XXIX, I order'd some *purging* Medicines, to the Intention either of removing, or preventing a Costiveness: And in these Cases it is evident, that I directed those mild CATHARTICKS not as the principal Remedies, but only as occasional and coadjutant Medicines.

§. 576. Let me add what deserves Notice
and

and Remembrance, *viz.* That as *purging* Medicines, (I mean given in such Doses as to produce six or eight *Stools*, or more in the Space of eight Hours, (the common Effects of giving a regular formal Purge) do hastily diminish the Quantity of the Lymph, and of the serous Part of the Blood; and as the thinnest Parts of the Fluids commonly run off first, so they must render the Blood and Lymph thicker than they were before the Patient was purged.

§. 577. PURGING therefore is improper, and will be hurtful in those painful Distempers, which have *viscid* Humours for their antecedent Cause, as the *Rheumatism*, and some other painful Diseases have; particularly those attended with Inflammation.

§. 578. PURGING Medicines seem likewise improper for the Cure of those painful Diseases, which have an *acrimonious* Quality in the Blood for their antecedent Cause; not only because they signify very little to the altering that *morbid* Quality on which those Diseases depend, but because they render the animal Fluids thicker, and the acrid Particles consequently less diluted; which is an Event we should surely labour to avoid.

§. 579.

§. 579. Aphor. 3. *That most of the common painful Distempers may be cured without Laudanum, or other Opiates ; consequently that Sort of Medicines is not necessary for the Cure of them.* This, I think, will appear evident from all the *Histories* related in this TREATISE, in which no *Opiate* was prescribed. And in the few Cases where *Laudan. liquid.* or *Elect. Mithridatii*, or *Syr. de Meconio* has been made an Ingredient of a Medicine, the Proportion of it in a Dose has been very little.

§. 580. In managing Persons under painful Distempers, I think the *main Stress* ought not to be laid upon OPIATES ; but that those Medicines should be prescribed, by Means of which we may rationally expect a Removal both of the *proximate* Causes of the painful Disease, and of that morbid Quality of the Blood from which it proceeded.

§. 581. Many other Particulars might be inferred from the FACTS related in the foregoing Sections ; but this Book is swelled beyond what I at first intended, and the Brevity I proposed to myself obliges me to take no Notice of them : But it seems necessary

cessary to obviate a mistaken Notion, which some Persons may otherwise entertain.

§. 582. Some, perhaps, may imagine, that since the most frequent internal, *antecedent* Causes of PAINFUL DISTEMPERS are either *viscid Humours* or *acid Particles* in the *Blood*; and that since *all acid* Particles existing in the *Blood*, or excreted from it, are of an *alkaline Nature*; that therefore *acid Medicines* are the *only* proper Remedies for the Cure of them; as they both attenuate the *Blood*, are proper to destroy any viscid Quality of it, and likewise to alter the Properties of those acid Particles, which are of an *alkaline Quality*.

§. 583. It is indeed allowed, that some ACIDS are often proper and needful; but we must consider, that as in a State of perfect Health, the *alkaline* animal *Salts* are, *by the Force* of the Action of the vital Organs, sufficiently comminuted and evacuated from the Body, altho' no *Acids* be taken into the Stomach intentionally for these Purposes; so *one main Thing* to be endeavour'd in curing PAINFUL DISEASES, is to *strengthen* the Solids, and *increase* the Force of the Action of the Heart and Arteries; except Cases attended with a symptomatick Fever:

Fever : If this be accomplished, it is very probable there will follow not only a Protrusion of any Particles adhering to the Extremities of the Nerves from their immediate Contact with them, but also a *Commixtion* of the several Parts of the Blood, a greater Degree of its Fluidity, and a more plentiful Evacuation of the *alkaline Salts*, and other superfluous and excrementitious Humours.

§. 584. This Opinion is confirmed by the Successes of such a METHOD with those Persons, whose Cases have been related in this TREATISE.

§. 585. But this Advantage of *strengthening* the Solids, and increasing the Force of the Action of the Heart and Arteries, is not to be expected from *acid*, so much as from other Medicines. I apprehend, that those *acid Medicines*, which conduce to the altering the Properties of the *alkaline Salts* in the Blood, and to destroy the Cohesion of the Parts of *viscid* Humours, and to thin the animal Fluids, are not like to increase the Force of Cohesion between the Parts of the SOLIDS.

§. 586. It appears to me very requisite, when a plentiful Use of *Acids* is needful for
altering

altering any *morbid* Quality of the Blood; to intermix Medicines, which may strengthen the Solids; that is, increase the Cohesion of their component Parts; and often those Medicines, which will render the Pulse stronger, are wanted; and the State of the Solids, and the Strength of the Pulse, should always be consider'd. I hope what has been observed does sufficiently shew, that *acid* Medicines are not the *only* Remedies needful for the Cure of painful Diseases.

§. 587. I have freely, without any Reserve, deliver'd my Sentiments on the various DISTEMPERS that have been consider'd; and have, so far as the Limits of these Papers would allow, faithfully communicated some of my *Experiences* in the Management of Persons under them; and with a sincere Aim at the Good of Mankind; hoping that this *Treatise* may, with the divine Blessing, become in the Hands of some young PRACTITIONERS a Means of guiding, and rendering more effectual their Endeavours of curing painful Diseases.

Μὴ ἡμῖν κύριε, μὴ ἡμῖν, ἀλλ' ὃ τὰ ὀνόματι
σου δὸς δόξαν, Psal. cxv. 1.

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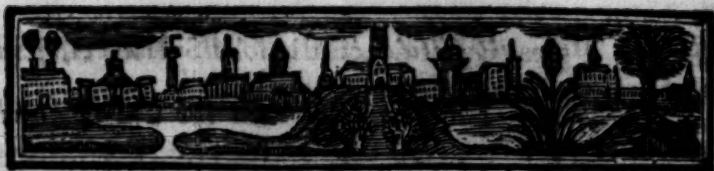


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MVSEVM
BRITAN
NICVM

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